Building World-class Acquisition Excellence

Roundtable Discussion
Dr. James I. Finley,
Claude M. Bolton,
Dr. Delores M. Etter,
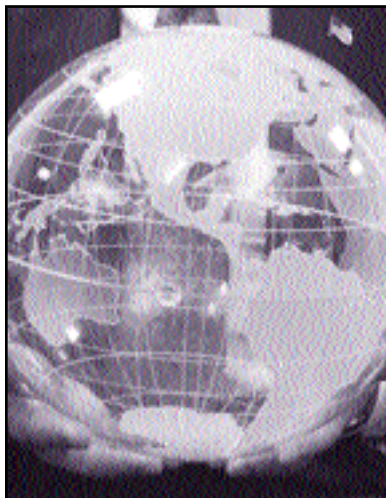and Sue C. Payton

Also

In Search of Logistics Visibility

The Process Cycle
Improving the Integrity of the CMMI Suite

Source Selection:
Communicating with Offerors

Manager or Leader?

DEFENSE ACQUISITION UNIVERSITY

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NSPS: Effective Management Tool
Marcia E. Richard
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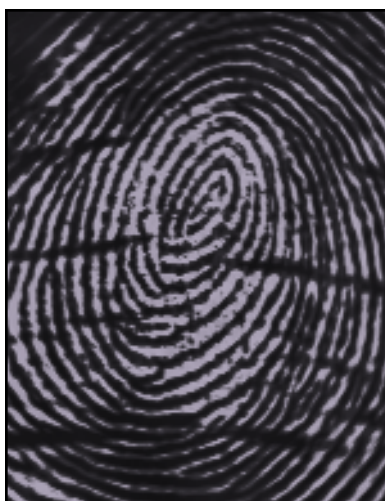
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Building World-class Acquisition Excellence

In May, Dr. James I. Finley, deputy under secretary of defense for acquisition and technology, sat down for a roundtable discussion with the three Service acquisition executives: Claude M. Bolton, assistant secretary of the Army for acquisition, logistics and technology; Dr. Delores M. Etter, assistant secretary of the Navy for research, development and acquisition; and Sue C. Payton, assistant secretary of the Air Force for acquisition, research and development.

Q
What initiatives are being taken for building world-class acquisition excellence?

Finley
This past year we have undertaken numerous initiatives focused on building a world class acquisition organization.

- Concept Decision Reviews: The Concept Decision initiative is designed to reduce the front end of our Joint Capabilities Integration and Development System process by two to five years, provide earlier decision-making for investment purposes, utilize bounded solutions for acquisition strategies, and converge investment decision making with trade-offs of resources, requirements, and technology maturity. This initiative is completely responsive to and in support of the Quadrennial Defense Review direction. Four pilots have been authorized and supported by DoD leadership and are on track for completion in 2007. Our first "Quick Look" Concept Decision for the Joint Air-to-Ground Missile Program was also accomplished earlier this year in approximately three months resulting in an investment decision approval utilizing the Tri-Chair Big "A" consisting of the under secretary of defense for acquisition, technology and logistics, vice chairman of the Joint Chiefs of Staff, and the director, program analysis and evaluation.

  Overall progress has been very encouraging to the credit of the tremendous teamwork between our respective Services, the Joint Staff and the Office of the Secretary of Defense.

- Acquisition of Services: The Acquisition of Services initiative is designed to reduce the cycle time to contract

for services, increase competition, and improve the quality of services provided. Contracting services comprise approximately 50 percent of the annual DoD budget. Best practices utilizing Naval Facilities Engineering Command and Army Core of Engineers are planned to utilize a cadre of government multi-functional teams

Left to right: Claude M. Bolton, assistant secretary of the Army for acquisition, logistics and technology; Sue C. Payton, assistant secretary of the Air Force for acquisition, research and development; Dr. Delores M. Etter, assistant

for performance based contracting. In addition, strategic planning tools will be used to aid the team and provide an emphasis for small business opportunities.

- Broadening Communications: One of my three key objectives is broadening communications with industry, the Hill and my Pentagon colleagues. It has been greatly beneficial to meet with the Service acquisition executives on a regular basis, share our perspectives, discuss ongoing programs and initiatives, learn about their experience and approaches for acquisition excellence, and build on these opportunities to improve with a best-

of-best mindset for building world-class acquisition excellence.

- The Defense Acquisition Transformation Report, Section 804 of the John Warner National Defense Authorization Act of Fiscal Year 2007, was submitted in February 2007. The report provides an initial list of over 20 initiatives in support of the Defense Acquisition Performance Assessment (DAPA) Report. An update to that report will be provided in July 2007.

Bolton

The U.S. Army acquisition, logistics and technology community has a number of initiatives under way to fundamentally change how the Army conducts business. Our goal is to streamline or eliminate redundant operations

secretary of the Navy for research, development and acquisition; and Dr. James I. Finley, deputy under secretary of defense for acquisition and technology.

DoD photograph.

and free financial and human resources in order to redirect to our core warfighting missions. We are reengineering all our business processes to achieve greater efficiency, improve quality, decrease cycle time, and reduce cost. One of the methods we are using is Lean Six Sigma, which has already produced a marked improvement in manufacturing and repair processes at our depots, resulting in cost savings.

In conjunction with these efforts to realize efficiencies, boost productivity, and enhance readiness through business transformation, we continue to establish Life Cycle

Management Commands (LCMCs). Currently, we have four: the Aviation and Missile LCMC at Huntsville, Ala.; the Soldier and Ground Systems LCMC at Warren, Mich.; the Communications and Electronics LCMC at Fort Monmouth, N.J.; and the Joint Munitions and Lethality LCMC at Picatinny, N.J.

Our overarching motivation in all that we do is to provide enhanced capability to the warfighter—particularly those in the warfight right now—much faster. One way of doing that is to bring the acquisition and logistics communities together. That was the whole focus when the LCMC concept was formalized in August 2004. Our goal is to provide products to the soldier faster, make good products even better, minimize life-cycle costs, and enhance the synergy and effectiveness of our Army's acquisition, logistics and technology communities. To accomplish this, we are fostering a closer relationship between the Army Materiel Command major subordinate commands and the program executive offices (PEOs).

The benefits to the Army—and certainly to the soldier—are astronomical, both in terms of getting weapon systems and equipment to the warfighter more quickly and sustaining those items once they get there. And, for the Army and America's taxpayers, we'll also be getting these things done in a more efficient and cost-effective way.

Payton

With our vision of delivering war-winning capabilities on time, on cost, we are addressing integration of Life Cycle Management in a number of ways. First, we are actively supporting the Air Force-wide process improvement initiative of the secretary of the Air Force and the Air Force chief of staff: Air Force Smart Operations for the 21st Century (AFSO-21). Our source selection improvement team recommendations are resulting in much improved requests for proposal that drive negotiations for technical data early in the competition so we can move to more affordable organic and 50/50 sustainment in our depots. Acquisition professionals responsible for research and development, system design and development, and procurement are working closely with Air Force Materiel Command and our logistics and sustainment workforce as we plan acquisition strategies and develop life cycle management plans. We plan to measure the reduction in documentation and meetings, reduction in timelines, reduction in scrap and rework as we streamline the life cycle enterprise. I recently chartered thirteen initiatives, otherwise known as the "Baker's Dozen." Each initiative is carefully designed to drive us towards a desired end-state of lean acquisition with integrity and credibility while improving stability in three focus areas—process, people, and products. In terms of measuring success, each of my initiative owners is developing metrics that are in alignment with our vision of delivering war-winning capabilities on time, on cost.

Etter

In the Navy, we have had much success with our Independent Logistics Assessment (ILA) program. Required by Department policy, ILAs provide program managers a methodology to periodically and consistently assess the logistics support strategy for our systems.

Assessments are conducted by third-party teams of experienced logisticians on all our high-visibility programs prior to major acquisition decision points assessing the adequacy of integrated logistics support to sustain operations throughout the life of the program. We include our customers, the Fleet and Fleet Marine Forces, on ILA teams to strengthen the bridge between acquisition and operational aspects of the life cycle.

Our success is measured through risk ratings and certifications by PEOs of the program's readiness for the next program decision point. Logistics readiness reviews conducted with the user community at initial operational capability and full operational capability provide a means to compare actual versus expected system performance—the ultimate measure of success.

Q

Overall, what is your most promising initiative to improve teamwork?

Payton

A number of our initiatives are making sound progress, but I am especially proud of our progress in two areas. First, we have implemented a risk assessment and reporting methodology that builds upon DAU and the U.S. Army's Probability of Success model. Historically, much of what we track could be considered lagging metrics—good for measuring past performance and trends, but not for taking proactive programmatic management measures. Our Probability of Program Success (PoPS) arms program managers with a predictive tool to gauge the health of their programs, alert them to emerging problems, and facilitate early mitigating actions. Building upon the strengths of PoPS, we are now investigating the tool's applicability as an information point within portfolio investment decisions. The second area we are making progress in is proactive external engagement. We must work together with industry and Congress to make a reality of our vision of delivering war winning capabilities on time and on cost. I recently hosted a roundtable discussion with a number of industry chief executive officers to identify the Air Force's current state enterprise issues and discuss new approaches and ways of doing business. We plan to establish a rhythm for this event and we are looking forward to a more transparent, collaborative environment.

The AFSO-21 is serving to build teamwork across the entire Air Force, while a sub-process called Delivering and

> I am leading an acquisition reengineering effort within the Department of the Navy to better control cost and requirements growth; more accurately estimate the cost risk in our programs; and match our contract types and incentives to the cost and risk of the program.

Sustaining Warfighting Systems is serving to bring our Life Cycle Management team together to include our major commands, R&D, acquisition, test and evaluation, logistics, and sustainment arms.

Bolton

The Army has set a new standard for teamwork with the Future Combat Systems "One Team." The FCS "One Team" has brought all stakeholders to the table from the very beginning of this important program. While FCS is an Army-run and Army-administered program, we have a lead systems integrator (LSI) that was competitively selected to help the Army manage high-risk complexity.

The Army's LSI management approach was devised to tackle today's program complexity and integration challenges; it is imperative for the creation of a joint networked force. Program complexity is reduced and made manageable by the high degree of commonality in systems and subsystems design. The LSI provides integrated program management, which makes large-scale systems integration achievable.

FCS performance to date confirms program management success. FCS is the most complex weapons procurement ever managed by the Army; yet the program—after four years of development—is on contract cost, on schedule, and performing to plan.

Etter

There are several promising initiatives in Navy Research, Development, and Acquisitions, but if I had to pick one that really stands out right now, it would be the Mine Resistant Ambush Protection (MRAP) vehicle program. This is a multi-Service initiative, led by Navy, to provide new vehicles for our deployed forces in theatre that will better protect them from the damaging effects of improvised explosive devices, rocket-propelled grenades, and small arms fire.

Our metrics for success on MRAP are rapid fielding of vehicles that, once in the hands of the warfighter, immediately begin to save lives. As a rapid, joint program, MRAP challenges us to use innovative, flexible acquisition, contracting, testing, production, integration, delivery, and sustainment approaches.

> All our initiatives rely on teamwork premises to establish trust and integrity, to make commitments for the creation of clarity, to accept that debate and differences are healthy, to hold one another accountable, to focus on collective results, and to conduct open and transparent communications.

Finley

All our initiatives rely on teamwork premises to establish trust and integrity, to make commitments for the creation of clarity, to accept that debate and differences are healthy, to hold one another accountable, to focus on collective results, and to conduct open and transparent communications. We have over 20 initiatives and all use teamwork principles to improve. Most recently, the Nunn McCurdy Certification process required an extensive amount of teamwork between the Services, Joint Staff and OSD, given a myriad of issues to sort out and structured questions to be answered.

The payoff for teamwork is witnessed every day that we conduct our respective jobs to protect our national security and be good stewards of our taxpayer dollars.

One of our most promising initiatives is Concept Decision. This initiative is planned to demonstrate that we can achieve significant reduction in our system acquisition time. An evolving tool kit is being utilized with the goal of reducing cycle times by 50 percent from program decisions to initial operational capability.
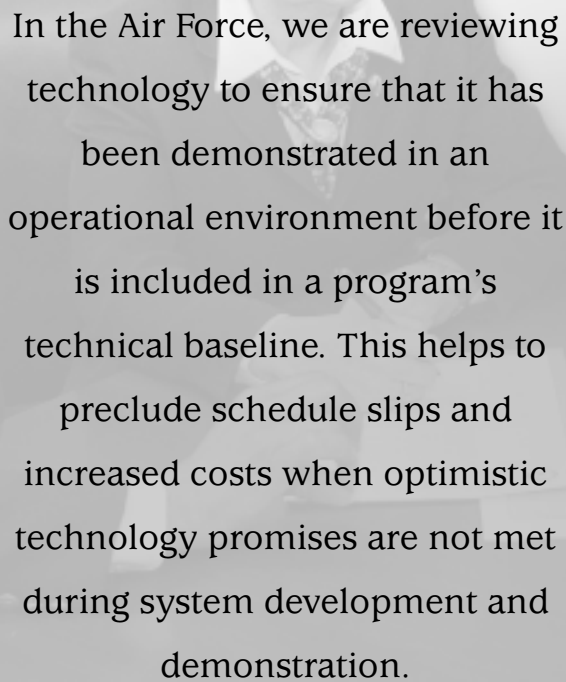
Q

What is your greatest challenge to improve leadership and competitiveness?

Etter

Our greatest challenge is getting the right resources where they need to be across our acquisition enterprise. Like most areas of the DoD, we are faced with the realities of being competitive in a fiscally constrained environment, and that means fewer people and less funding than we would optimally like. At the same time, we are a nation at war, and there is a true urgency to the programs we're working on. It is critical that we execute our programs well, and in a productive partnership with our industry counterparts.

I am leading an acquisition reengineering effort within the Department of the Navy to better control cost and requirements growth; more accurately estimate the cost risk in our programs; and match our contract types and incentives to the cost and risk of the program. As part of this effort, I am focusing resources where they are most needed, including ensuring that our higher-risk and most critical programs are resourced properly. A properly resourced program will have the right staffing levels of on-site government oversight better matched to construction schedules. It also means that we need to provide appropriate resources and manning to the acquisition program offices and supporting Systems' Command offices. And I am trying to improve the experience, training levels, and leadership skills of the program managers and their staffs.

> In the Air Force, we are reviewing technology to ensure that it has been demonstrated in an operational environment before it is included in a program's technical baseline. This helps to preclude schedule slips and increased costs when optimistic technology promises are not met during system development and demonstration.

I am particularly excited about a series of workshops I am calling "A Dialogue on Acquisition Excellence." These workshops will be an opportunity for me to personally share the lessons learned from the recent Littoral Combat Ship cost overruns with each of our PMs.

Finley

I believe one of my greatest challenges is to provide an environment that encourages the will to change, a concept I strongly and actively encourage. We need a more flexible, agile, and frugal acquisition system; we all need to be open and receptive for change. In support of those needs we are streamlining and simplifying the acquisition system. We are building on what is working, using focused initiatives to implement changes toward acquisition excellence.

To help facilitate change, three books come to mind as excellent references. One of the first books presented to me when I came on board last year was Kerry Patterson's *Crucial Conversations: Tools for Talking When the Stakes Are High*. The book is a *New York Times* best seller. Another book that I recommend is *Lincoln on Leadership: Executive Strategies for Tough Times*, by Donald T. Phillips. A third book, *Easier Than You Think … because life doesn't have to be so hard: The Small Changes That Add Up To*

A World Of Difference by Richard Carlson, offers insight for change. These books are examples from the many excellent sources of valuable perspective, insight, and experience to improve leadership and competitiveness, utilizing continuous learning.

Payton

You can improve leadership only by empowering acquisition leaders with the authority they need to do their jobs. My greatest challenge is delegating authority to the lowest level possible when government bureaucracies mandate all decisions be made by the most senior executives. On Sept. 7, 2006, I challenged our Air Force contracting officers worldwide to play the vital role necessary to shape acquisition decisions; to conduct business with integrity, fairness, and transparency; and to deliver the best-value products and services to our warfighters. They have responded magnificently.

To improve competitiveness we must reduce the number of sole-source contracts with thorough market research, develop our requests for proposals with fair and open competition in mind, and conduct our source selections without fear or favor.

Bolton

In answer to this question, I have three words: education, education, education! Our most important asset is our people. Our workforce focus is to develop flexible acquisition officers and civilian leaders who possess a diverse and well-rounded background; can effectively support all phases of acquisition; and are prepared to lead any complex, multifunctional acquisition command, agency, organization, or team.

It takes not only time, but a substantial investment of resources to develop the required depth of experience. The looming exodus of expertise resulting from pending retirements within the next three years keeps me awake at night. The question I struggle with is, "How do I grow the bench without additional resources?"

Q

What are some examples of changes toward the simplification and streamlining of the acquisition process to deliver products with more predictable performance?
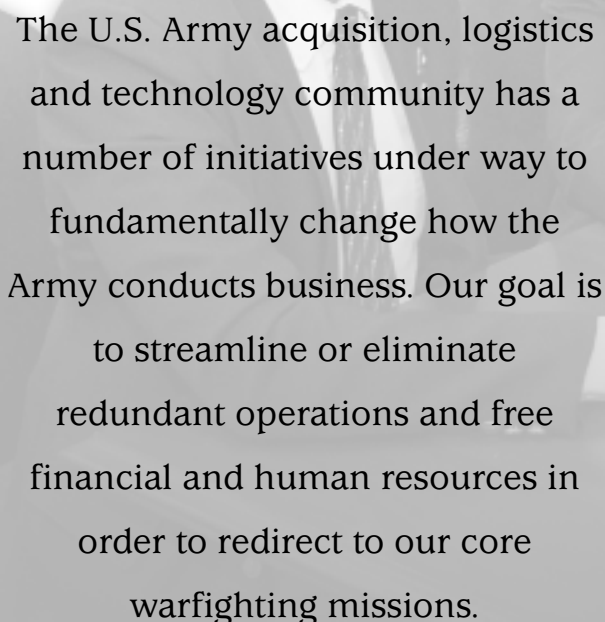
Finley

I am very strong advocate of Lean Six Sigma. One of the best examples that I can share with you is the restructuring of the Defense Acquisition Executive Summary (DAES) meeting, which utilized the tools of Lean Six Sigma process improvement.

Working with the Service acquisition executives, the Joint Staff, and OSD organizations, we have simplified and streamlined this meeting to include:

- Standard set of five charts

- Lean, shared leading metrics with defined criteria for contract and acquisition program baseline performance

- Known problem closure dates with 30-, 60-, 90-day horizons

- Risk management assessments for issues that include mitigation plans and closure dates

- Quad charts to compare cost drivers/key performance parameter compliance/cost trip wires, and technology maturity

- Interdependency chart to illustrate the program interfaces.

Over 50 percent of the supporting documentation for the DAES meeting was eliminated and all of the Services plan to have their databases electronically connected with OSD within this calendar year. We are continuously assessing improvements to the DAES process with the goal to achieve all programs with predictable performance.

> The U.S. Army acquisition, logistics and technology community has a number of initiatives under way to fundamentally change how the Army conducts business. Our goal is to streamline or eliminate redundant operations and free financial and human resources in order to redirect to our core warfighting missions.

Bolton

In addition and to support the LCMC initiative that I discussed in answer to the first question, the Army is pursuing and promulgating the "Big A" and "little a" concept. Improved fielding of future integrated, joint capability will best happen with a total team (Big A) approach versus strictly relying upon the acquisition (little a) community. The Big A must include requirements/capability, resourcing, acquisition, test, fielding, and sustainment communities. All must be educated, trained, and experienced in order to meet the rapidly increasing demands of our current and future warfighters.

The following are some examples of our success to date:

- The Army Capabilities Integration Center, headquartered at Fort Monroe, Va., which is charged with the identification, design, development, and synchronization of capabilities into the Army's Modular Force, both current and future, including our Future Combat Systems

- The Army's Probability of Success (show cause) initiative to demonstrate program viability and health

- A rigorous Army Systems Acquisition Review Committee process for all programs

- A simplified program/contract termination process

- A determined effort under way to mandate a one page policy.

My metric—for myself and the organization I lead—is determining what has been done to better the protection, capability, safety, and well-being of the soldier in the field.

Payton

In the Air Force, we are reviewing technology to ensure that it has been demonstrated in an operational environment before it is included in a program's technical baseline. This helps to preclude schedule slips and increased costs when optimistic technology promises are not met during system development and demonstration. We are conducting a zero-based review of all program documentation on several weapon systems to ensure that we do not waste time and money in duplication and review cycles. We are transitioning Advanced Concept Technology Demonstration prototypes such as the Joint Precision Air Drop System and the Network-Centric Collaborative Targeting capability as they are proven in military utility assessments.

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In Search of Logistics Visibility

Enabling Effective Decision Making

Lt. Gen. C. V. Christianson, USA

Joint force commanders (JFCs)—and by extension, their logisticians—require timely, accurate, and relevant information to make effective decisions. This requirement is especially critical in the joint logistics environment (JLE). The joint logistics community must continuously execute processes, effectively coordinate the allocation of limited resources, and clearly understand the supported joint commanders' requirements across the broad range of military operations. To execute these functions effectively and efficiently, joint logisticians must have visibility.

This article serves as a reference point for discussion, a framework for concept development, and an integrating tool for the countless efforts across the Department of Defense and industry to improve logistics visibility in the broadest and most holistic sense of the term. It offers a proposed definition of visibility, highlights key issues and concepts for consideration, and presents ideas for future efforts based on where the most pressing requirements for visibility lie within the JLE. Complete, system-wide access to all information is clearly not attainable or even desirable; given that, I will also broadly describe the types of visibility required by different elements within the JLE.

What is Logistics Visibility?

Current definitions of visibility focus almost entirely on asset visibility. In order to provide effective logistics support across the operating environment, the joint logistician must "see" more than just assets. He or she must fully understand the requirements for logistics support (who needs what) and the resources available (what there is to work with). The logistician also must be able to monitor joint logistics performance within the JLE (whether or not the logistics processes are in place and working). Without this kind of knowledge, the logistician cannot plan or execute effectively or efficiently.

For the purpose of this article, logistics visibility is defined as "access to logistics processes, resources, and requirements to provide the knowledge necessary to make effective decisions."

A process is a series of actions, functions, or changes that achieves an end or a result. Multiple processes occur across

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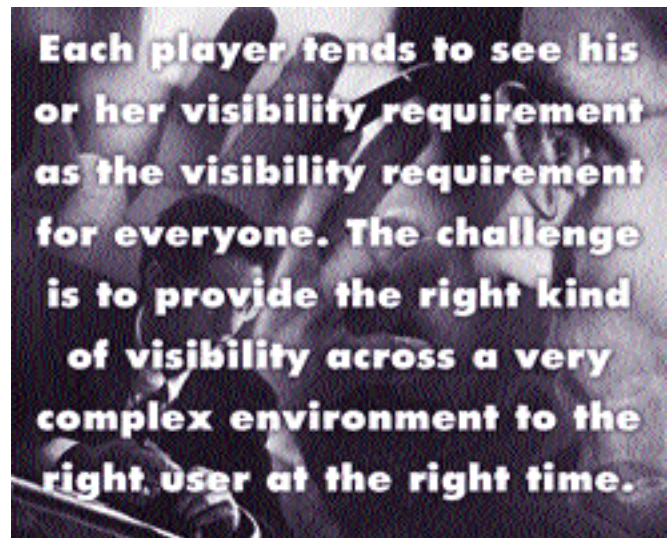
and within the JLE—for example, depot repair, patient movement, force deployment, and the delivery of contingency contracting support. Before we can effectively develop visibility applications, we must clearly understand the end-to-end processes that deliver an outcome for the joint force. Mapping these processes is critical to knowing where and when to place visibility "sensors" that give us the knowledge we need to deliver those joint outcomes.

Resources can be defined by using the term "total assets." Total assets are defined as the aggregate of units, personnel, equipment, materiel, and supplies that are brought together in time and space to generate joint capabilities and their supporting processes. We must be able to see Service-component logistics, multinational logistics, and other logistics assets in a way that provides integrated resource visibility to the joint warfighter.

Requirements are what the joint force needs to accomplish its mission. Requirements can originate from anywhere and can result in a tasking for anyone in the JLE. Requirements also change over time, based on plans, current operations, and changes in the environment.

Collectively, visibility of processes, resources, and requirements comprise the information that logisticians need to accomplish their mission; without each of these

elements, they cannot prioritize effort. Logistics visibility provides the ability to plan, synchronize, and monitor operations to optimize outcomes. The ultimate effect we are trying to achieve is sustained logistics readiness.

Some think that visibility should extend across the entire logistics domain and should include complete real-time access for everyone within the system. While it is true that every aspect of the enterprise must be visible to planners, operators, or managers at some level, it is also clear that not everyone needs to be able to see everything all the time. At some point, too much information may be a hindrance and can actually detract from effective decision making. Consequently, we should ask these questions about visibility: Which members of the JLE need visibility, and why do they need it? What do they need to see? Finally, where do they need visibility? These questions have significant implications for systems design, operational planning and execution, and resource allocation.

Who Needs Visibility and Why

Everyone within the JLE has a requirement for some type of visibility. However, the ultimate purpose of achieving visibility resides at the tactical level, where operational requirements form the basis of all efforts across the JLE. The joint logistician's customer is at the tactical level! Each component of the JLE needs visibility to support the end user at the tactical level.

The JFC needs visibility to execute directive authority for logistics. Without visibility of JLE processes, resources, and requirements, the JFC cannot integrate Service-component capabilities to achieve mission objectives.

The joint logistician matches resources with anticipated requirements to provide supportability assessments to the JFC. The supportability assessment determines if the JFC's operational concept can be sustained. As operational requirements change, the joint logisticians also must have visibility so that they are able to reassign resources rapidly.

The Services are responsible for delivering well-prepared forces and equipment to the JFC. At the strategic level, this mission demands different information and uses different processes from those employed at the operational or tactical levels. In order for the Services to deliver the forces and equipment necessary for mission accomplishment, they need visibility of the JFC's requirements. The Services also need visibility of the processes that support the efforts of their theater components.

Planners and decision makers at the DoD-staff level require visibility to provide responsive and relevant policy guidance and ensure that the DoD's strategic resources are applied appropriately. Their goal is to ensure that resources are used to achieve efficient and effective outcomes.

Finally, the DoD's interagency, multinational, and commercial mission partners require visibility of processes, requirements, and resources that are necessary to support their participation in DoD operations.

What They Need to See

Your position within the JLE affects what you need to see. What the end user wants to see is different from what the manufacturer, supplier, or distributor wants to see. Each player in the JLE tends to see his or her visibility requirement as the visibility requirement for everyone. The challenge is to provide the right kind of visibility across a very complex environment to the right user at the right time. Depending on the situation, we need visibility of processes, resources, or requirements.

Process visibility provides process owners and decision-makers with the ability to evaluate the effectiveness of a particular process. They must be able to answer the question, "Are we delivering what is expected?" The deployment and redeployment processes, the force reception process at a major port, or the depot repair process are all parts of a system that relies on visibility. Joint logisticians and process owners need visibility to control and optimize the outcomes of processes.

Resources must be visible by item, person, or unit, individually or as a group. In some cases, visibility by a unique identifier (such as a serial number, lot number, national stock number, Social Security number, or unit identification code) is required. Some individuals or items are so important—politically, operationally, or tactically—that, by their very nature, they require real-time, 100-percent visibility across the logistics enterprise. Examples of such items include fissionable material, human remains, and vaccines. In other cases, visibility of groups of items, persons, or units is needed to determine the status of a particular capability and its ability to achieve the JFC's mission; for example, a specific force module, a port-opening capability, or a medical treatment capability.

Requirements must also be visible by item, person, or unit, individually or as a group. Ultimately, visibility of requirements—which are usually designated by the JFC—is necessary to initiate support efforts across the JLE. The Services, supporting combatant commands, and Defense agencies require visibility of those requirements to better support the JFC's mission. DoD must have visibility over those requirements to ensure the effective and efficient use of DoD resources.

Where Visibility is Needed

Where visibility is needed depends on where you sit. End users will mainly want to know when they will receive

their items and will be less concerned about every step along the way to final delivery. Visibility is needed while elements are in transit from the point of origin (commercial vendor, unit, storage activity, or maintenance facility) to the destination (unit, storage activity, or maintenance facility); in storage (at a unit, DoD site, commercial site, or disposal activity); in process (that is, acquired from a source of supply but not yet shipped, or under repair, at an intermediate- and depot-level organic or commercial maintenance facility); or in use.

Visibility priorities and needs may change over time or across the phases of an operation. For example, planners might see joint force requirements as their most critical need, while available resources might take precedence during the sustainment phase of an operation. During the initial phases of expeditionary operations, visibility of processes might be most important to ensure that limited resources are being optimized as planned. That said, each of the three elements of visibility—processes, resources, and requirements—is needed to make effective decisions.

Several barriers inhibit DoD efforts to enhance and share visibility. First, authoritative data are not always available to the joint logistician. The only thing worse than not having data is having two different sets of data. The inability to provide trustworthy data impedes quality decision making. Second, it is unlikely that the DoD will have unity of command over the entire spectrum of joint logistics. So, one of our major challenges is to achieve unity of effort without unity of command. This is particularly an issue as logisticians share information across different commands, agencies, systems, and processes to develop a common operating picture.

Another major dilemma is how to ensure adequate security for sensitive information while simultaneously offering the maximum possible ease of access to all members of the community. Operational partners, both inside and outside DoD, including international friends and allies, need to have confidence that their information will be handled properly by our systems. Finally, the desire for information often drives users to want to see everything all the time. However, no one in the JLE needs to see everything all the time. Knowing what is really needed becomes the key to an information environment that effectively supports quality decisions.

The Way Ahead
Senior logistics managers, planners, and system developers must enhance visibility for everyone within the JLE, and we must allocate resources and focus our efforts to achieve that effect. From our perspective, we see four areas where we think we can make major improvements to visibility in the months and years ahead.

Map the processes. Joint logisticians must understand, define, and document the processes within the JLE, leveraging the ongoing work of the Joint Logistics Portfolio Management Test Case and the U.S. Transportation Command Distribution Process Owner (DPO). We also must use the base realignment and closure initiative to further our understanding of the defense supply chain and develop an integrated process as an outcome of that initiative.

Identify existing visibility capabilities. The joint logistics community should continue to capitalize efforts already under way within the DPO and other activities. We must document and integrate those existing or emerging efforts that contribute to increased logistics visibility, and we must align visibility requirements with our process-mapping to eliminate redundancies and gaps.

Develop a JLE data architecture. With the Defense Information Systems Agency as the lead, we must define the data framework, identify authoritative data sources, and influence and guide the joint logistics community's network-centric data strategy. The goal is to develop a JLE data architecture campaign plan.

Deliver a joint logistics software application. The joint logistics community should successfully employ a program that enables visibility for the joint logistician, such as Global Combat Support System-Joint. We must ensure that GCSS-J turns data into information and enhances the ability of the joint logistician to effectively plan and execute joint logistics operations.

The Means, Not the End
Visibility is not an end in and of itself but a means to make better decisions, gain efficiencies, and improve effectiveness across the JLE. It is also an objective we will continually strive toward; as the logistics environment continues to change, there will always be additional information requirements or demands for enhanced timeliness and accuracy. As logisticians, we continually strive to improve the quality of our decisions and optimize the logistics readiness of the joint force. Enhanced visibility will lead to increased logistics readiness and improved user confidence.

We are all partners in delivering visibility across the JLE, and we all have a critical role to play in helping to deliver sustained logistics readiness to the JFC. The logistics community and those who interact with us must all work together to develop this capability to enhance support to the JFC and, above all, to the Service men and women who depend on us.

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The Process Cycle

Capt. Gabe Mounce, USAF ▪ Maj. Dan Ward, USAF

Modern program management literature is full of praise for activities such as Six Sigma, Balanced Score Card, Lean, Re-engineering, and Process-driven enterprises. These approaches all have their strengths and are appropriately credited with turning around countless organizations across a variety of industries. Process-oriented organizational methods clearly have real value and convey nontrivial benefits to the groups who use them. However, like all good things, it is possible to have too much process—and modern industry's tendency to overindulge is clearly in operation in the process world.

The current fascination with process work began in the Industrial Revolution. Fredrick Winslow Taylor conducted studies in early factories to identify inefficiencies in the assembly system. Today's intellectual descendents of Taylor's work have titles like Lean Re-engineering 6-Sigma Black Belts, but in the end, they're not much different from the efficiency experts of years gone by.

The early assembly lines were made up of "human robots," and Darth Taylor treated them like nothing more than machines in his study. To enable higher efficiency, all you had to do was tweak the robots to get the output you required. And so the humans who embodied these robots used none of their own intelligence to accomplish their assigned tasks; they simply followed prescribed orders. The more perfectly these folks followed the prescribed orders, the more efficient the work and, thus, the more produced.

This idea has pervaded every aspect of our modern working lives. Most folks simply follow the procedures given to them and never ask questions. That's not surprising—it's been drilled into us from our early school days: color inside the lines, and dot all your i's and cross all your t's. Thus, we never register feedback into the system for a better way to do something.

In fact, following processes has become so ingrained that when someone or something requests a deviation, we react like the robots from old science fiction movies: "Does not compute! Does not compute!" Or to put it in more familiar terms, "But we've always done it this way" and "Sorry, but we have to follow the rules."
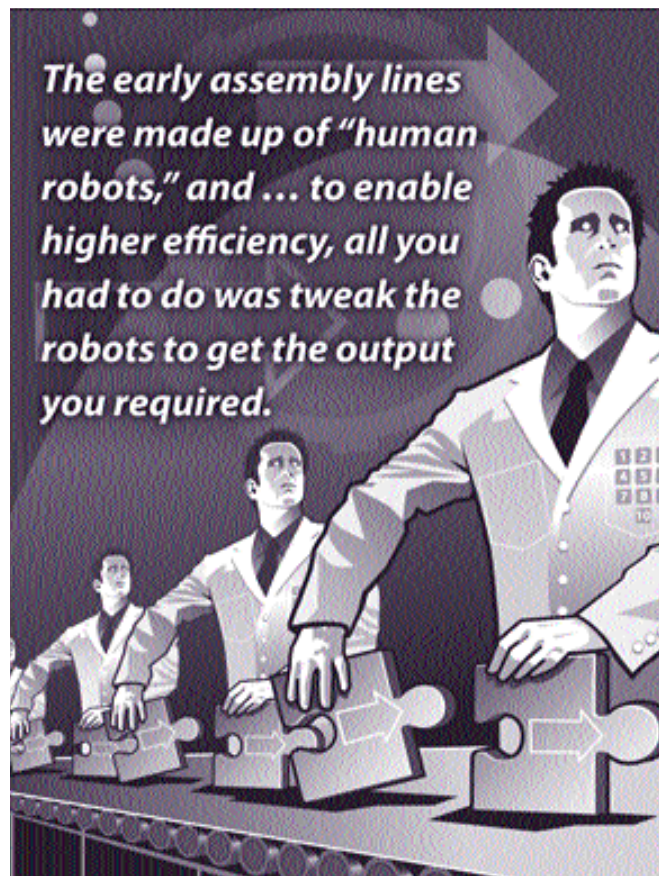
It turns out, in our experience, that the value of process over time is not constant. Specifically, in an effective organization, the degree to which a person relies on any given process or method should change over time. When there's no such change, the result is frustration and inefficiencies; and in a bureaucratic, ineffective organization, the reliance on process either stays constant or even increases. That's bad!

Now, we're not saying that process is all bad. For example, pilots go through a strict checklist when flying an aircraft. In fact, the learning curve in becoming a pilot is

The early assembly lines were made up of "human robots," and … to enable higher efficiency, all you had to do was tweak the robots to get the output you required.

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quite high because of the sheer number of standardized steps you have to learn. Because piloting an aircraft is inherently dangerous, most pilots live (or die) by the checklist.

These checklists have been developed over time with all the lessons learned from previous failures (i.e., people crashing and dying). So they're very important. And yet, on several occasions, we've seen experienced pilots deviate from the checklist when an unforeseen circumstance arose. True, this alternate procedure was itself a standardized process, a reaction to an emergency, and the pilot probably had several of these alternate procedures memorized for almost every given situation. But the point is, experienced pilots know how to fly. They know what they should do in most any situation, and—here's the key—they know when to deviate from a standard procedure.

The Process Cycle

Let's take a look at the Process Cycle as depicted below. The x-axis represents experience. Over time, as you learn how to do something, your experience in doing that something increases. The y-axis, therefore, represents your reliance on a process in doing that something.

The Process Cycle
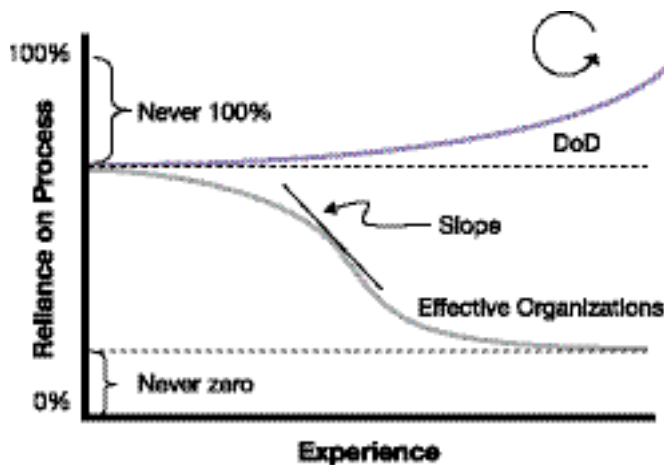
As your experience grows, your ability to perform independently of a given process or procedure increases. In the beginning you have very little experience, so your reliance on process is high. However, this reliance is never 100 percent. Everyone has a certain intrinsic experience level, a basic tool set that allows them to function, even to the smallest level, without the help of a process.

As you accumulate experience, the curve rolls off toward a decreasing reliance on process. At some point along this curve in experience level, reliance on process starts to taper as you learn a majority of what you need to know.

At this point, you understand how to do something well enough that you also understand when deviation from the process is warranted. You are able to rely on your own judgment and experience, rather than on the standardized, documented, proscribed Way of Doing Things Around Here. Thus, the slope of the curve becomes flat: no new knowledge or experience is gained as time goes on and therefore no change along the y-axis.

But you do still reference the process as a guideline and (generally) carry out your task according to it. So reliance on process is never zero. Unless you change jobs or start something new (introduce a shock to the system), the curve will continue to be flat. Conceivably, forever. But if you do introduce a shock, then the cycle repeats, perhaps starting over at a new, much lower experience level and therefore a new learning curve using a process; or it could pick up right where your experience has leveled out and drop toward zero again, further decreasing your reliance on process. This is the Process Cycle.

When Process Takes Over

Unfortunately, many large, hierarchical organizations don't work this way. Instead, they increase reliance on process to infinity, regardless of the individual's experience level. This type of organization believes you can never tweak the process enough or gain enough experience to do the job sufficiently, and they tend to distrust any deviations from the norm. They continually strive for perfection, standardization, and predictability. In fact, the more experience people in these organizations gain, the more reliant on a process they become.

Such organizations spend a good deal of time tweaking, inventing, addressing, and adding processes and procedures to their process repertoire, intent on reaching Process Shangri La. Notice how the curve goes to infinity? "If only" (pant, pant, as the executive struggles up Mt. Process) "we could increase productivity by one-tenth of a percent … gotta redefine the process and drive out all deviations."

With so much value placed on process, it's no wonder many companies get caught up in a jungle of bureaucratic rules, stipulations, regulations, process guides, executive orders, local operating instructions, and so on.

The Process Cycle Alternative

Yet there is a relatively easy way to disengage from this downward spiral and get back onto the real process curve. What is it? Simply shift what you place your value on. Rather than placing value on process, place it on the much more transcendent concept of trust. That's all it takes. Trust your employees to find the best way to perform a task. Trust the contractor your employees hired for that task to carry it out. Trust your coworker's ability to do the job independent of your control. Trust your gut to tell you when denying permission is appropriate. Trust that your

subordinates don't need your permission to do the very best thing possible. Trust. It really is that simple.

Many balanced score card ninjas might disagree, but it actually works. Ricardo Semler and his famous (and successful) SEMCO are the proof. Semler tried all the traditional business practices to make his company a lean, mean, production machine. In his book *Maverick*, he says that after putting into place all sorts of controls and process mechanisms to increase productivity, "SEMCO appeared highly organized and well-disciplined, and we still could not get our people to perform as we wanted, or be happy with their jobs. … People weren't gratified by their jobs and often seemed oppressed by them. The traditional attitude about workers was that you couldn't trust them. You needed systems to control them. Yet, at SEMCO the system was dispiriting and demotivating them."

Semler felt that SEMCO could be run differently, "without counting everything, without regulating everyone, without keeping track of whether people were late, without all those numbers and all those rules. What if we could strip away all the artificial nonsense, all the managerial mumbo jumbo?"

With so much value placed on process, it's no wonder many companies get caught up in a jungle of bureaucratic rules, stipulations, regulations, process guides, executive orders, local operating instructions, and so on.
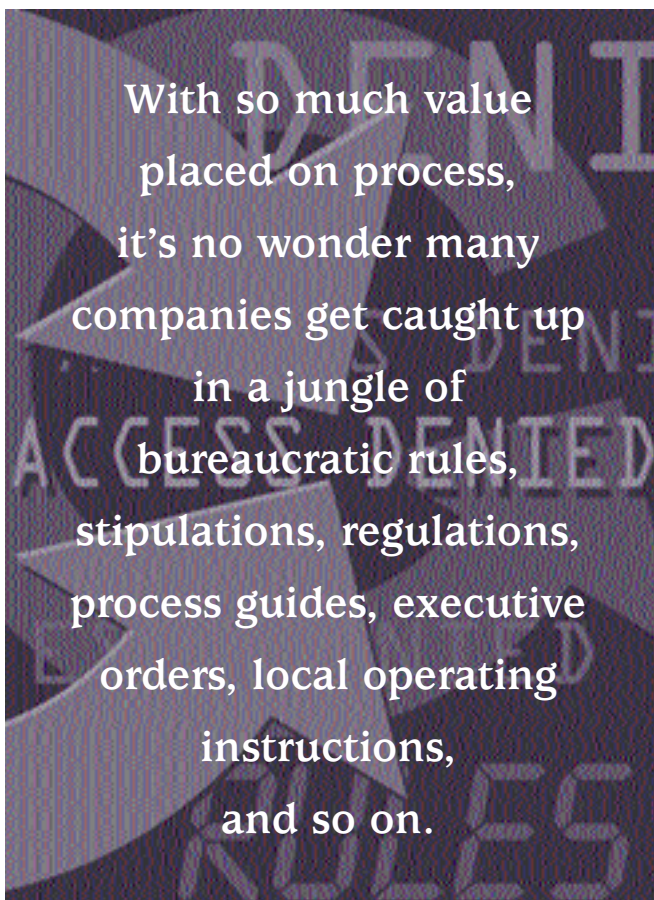
And that's exactly what he did! He threw out the rule book and left the decision-making power to do just about everything in the hands of his workers. No more schedules, or dress codes, or whole sections of people generating mountains of paperwork trying to control employees. Instead, workers set their own hours, bosses run their business units the way they see fit, and even set their own salaries. In fact, SEMCO's only policy is no policy. Semler's basic message is, use your common sense. "All those rules cause employees to forget that a company needs to be creative and adaptive to survive. Rules slow it down. We have absolute trust in our employees. In fact, we are partners with them."

How has SEMCO fared? Take just one of myriad examples.

After letting employees reorganize into their own work units, one unit stumbled onto a problem. In order to sell more food-slicing units, they'd come to the conclusion that they needed to change out the stainless steel finish of the cutting blade to a matte finish. But their engineering analysis showed it would take six extra production steps and five additional hours of work. The slicer would be too expensive. "But one worker had an idea, stayed behind [while the others went to lunch], and gave [one] slicer a matte finish in just four steps. When his colleagues returned, they were amazed to learn that the new finish added less than an hour to the assembly time. A new slicer was born, and sales shot up to several hundred a month."

In other words, by simply doing away with a large portion of the rules that governed his operations and replacing them with the principle of trust, Semler enabled his company to do far more than was thought possible before.

Change Your Values

By changing what you value, it's very easy to start clearing away the cobwebs of process that entangle many organizations. You'll discover you don't need huge sections and layers of people to account for the processes that govern work. Instead, you'll have people who are directly engaged in accomplishing the mission because they retain the responsibility and authority to do so. And because people have the authority to develop and tweak their own individual processes, they easily register feedback into their routine, as needed, to get the job done—something that is hardly possible in bureaucratic hierarchies. And thus, The Process Cycle is born … giving people the freedom to use their own strengths, intellect, and abilities to do the job.

Improving the Integrity of the CMMI Product Suite

Mark D. Schaeffer ▪ Lawrence T. Osiecki ▪ Karen Richter ▪ Kristen Baldwin

Over the past few years, it has become apparent to the government sponsors of the Capability Maturity Model Integration that acquirers had unrealistic expectations of what a supplier's CMMI maturity level claims could provide to an acquisition program. The Department of Defense recognized that many DoD acquisition programs are including requests for CMMI maturity levels in requests for proposal (RFPs) in spite of the fact that DoD has not promulgated policy requiring adherence to any CMMI maturity level rating. DoD does not place significant emphasis on capability level or maturity level ratings, but rather promotes CMMI as a tool for internal process improvement. This lack of emphasis on ratings is prudent in the light of findings that not all suppliers are exhibiting behavior consistent with their attained CMMI maturity level rating. Additionally, issues have arisen regarding appraisal integrity and misrepresentation of the benefits of a "level."

DoD and industry have initiated various efforts to better understand the issues contributing to the difference in expectations versus DoD's observations. First, the National Defense Industrial Association (NDIA) Workshop and Summit on CMMI Use in Acquisition, held in September 2005, identified issues and offered a set of preliminary recommendations. The initial set of issues that DoD and industry determined to require further attention were:

▪ Program office understanding of the need for and benefit of mature and capable processes

▪ Lack of training and guidance for acquiring organizations on CMMI usage

▪ Limited content and usefulness of the appraisal disclosure statements (ADSs) submitted by suppliers

▪ Benefits and drawbacks of specifying or requiring minimum CMMI maturity level ratings in RFPs

▪ Organizational approach to CMMI implementation and appraisals.

> *DoD does not place significant emphasis on capability level or maturity level ratings, but rather promotes CMMI as a tool for internal process improvement. This lack of emphasis on ratings is prudent in the light of findings that not all suppliers are exhibiting behavior consistent with their attained CMMI maturity level rating.*

In the spring of 2006, a government review and assessment team validated these issues, refined and augmented them, then recommended actions to the CMMI Steering Group, which is composed of representatives from DoD, industry, and sponsors. Finally, the Defense Contract Management Agency conducted a data call that confirmed their initial assessment about inconsistencies between

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appraised ratings claimed and observed program performance.

These efforts resulted in a consolidated list of issues that the sponsors believed needed to be effectively addressed:

- Observations that suppliers execute at lower maturity levels than they have achieved in a formal appraisal

- Once achieved by an organization, a CMMI maturity level rating existed for life

- Organizations do not necessarily incorporate CMMI-appraised processes on new projects

- CMMI-driven processes and practices are not consistently applied at the project level after contract award

- Appraisal sampling procedures did not ensure adequate coverage of the organizational unit granted the appraisal rating

- Appraiser quality and training raised issues with integrity of maturity ratings

- Lack of consistent understanding and application of high-maturity practices

- Lack of definition within the CMMI Product Suite on what constitutes high maturity

- Content of ADSs lacks specificity and is not useful to program offices

- Inadequate training and education for acquirers.

CMMI Version 1.2 Release

The Office of the Under Secretary of Defense for Acquisition, Technology and Logistics, and the NDIA Systems Engineering Division—the co-sponsors of the CMMI—directed the CMMI Steering Group to take the necessary actions to improve the integrity of appraisal results and address other shortcomings in the CMMI Product Suite. Implementation teams under the stewardship of the Steering Group developed the necessary changes to the model, the appraisal method, and the training with this goal in mind. As a result, the CMMI Product Suite has been modified to address each of the identified issues.

"Level for Life" Eliminated

Many organizations have attained a CMMI maturity rating over the years. Often these ratings are prominently displayed in a firm's marketing material and highlighted in proposals. Since there was no definitive rule regarding when appraisal results became invalid, it was left to interpretation when appraisal results were considered stale. Version 1.2 established that appraisal results would remain valid for a maximum of three years. Organizations will have to re-appraise using the current CMMI model and appraisal method in order to make any maturity or capability level claims beyond this.

CMMI Version 1.1 Retired

The entire CMMI Version 1.1 Product Suite will be retired effective Aug. 31, 2007. Thus, all appraisals after that date must use the Version 1.2 model and appraisal method. The full set of CMMI Version 1.2 policies is available at < www.sei.cmu.edu/cmmi/appraisals/cmmiv11-sunset-appraisal-policies.html >.

Organizational Processes Applied at Program Start-up

Organizations at maturity Level 3 or higher are expected to employ their organizational processes on new programs. There is evidence that some organizations either do not employ them or delay applying them on new programs. Material added to the model in Version 1.2 now requires organizations to deploy their set of standard processes at project start-up and deploy changes to those processes as appropriate throughout the life of the project.

Appraisal Disclosure Statement Improved

The ADS was enhanced by the addition of specific information on the sampling approach, percentage of projects sampled, and the organizational scope. The updated Version 1.2 ADS requires provision of detailed information on what was appraised in an organization. Previously, it was often not clear which organizational unit actually had attained the maturity rating in a large corporation. The ADS will now list specific projects, organizational units, and domain information. This provides insight to an acquirer who is interested in the capability of a particular organization for a specific project, unit, or domain. Additionally, these changes in the ADS are intended to improve program selection integrity by placing more responsibility on lead appraisers to ensure a representative organizational sample. New, required disclosure information regarding applicability to the organizational unit clarifies this issue.

Verification of Level 4 and Level 5 Processes

To achieve a high maturity rating, an organization must quantitatively manage (maturity Level 4) or optimize (maturity Level 5) select processes and subprocesses. Review of CMMI appraisals revealed a lack of consistency in what constituted Levels 4 and 5. Some organizations would select one subprocess, while others would attempt to quantitatively manage and optimize all of their processes. Neither behavior exhibits the intent of the model, which is to apply high maturity practices on select processes or subprocesses that are important to an organization's business goals and objectives. Some processes may not warrant high maturity application. Further, if the chosen processes or subprocesses are not those of value to the

organization, domain, or program, the supplier's high maturity activity may not add benefit. With Version 1.2 of the ADS, lead appraisers now have the added responsibility to verify that the chosen processes relate to the organization's business objectives. Additionally, the Software Engineering Institute (SEI), designated by the sponsors as the CMMI Product Suite steward, has undertaken a significant effort to set qualifications for high maturity appraisers, update high maturity training with certification, and deploy these standards across the pool of high maturity appraisers.

Appraisal Results Reporting Changes

Acquirers should have insight into all the process areas that make up an organization's capability or maturity level ratings. A capability level profile provides the capability levels of the individual CMMI process areas. Examination of the capability level profile provides the ability to determine whether an organization is mature in processes that are critical or relevant to an acquirer's program. A single maturity level rating does not provide this insight. In this regard, the capability profile level is more meaningful and is endorsed by the DoD as a better metric to understand process capability than relying on a single maturity level rating.

Quality Audit Review

The SEI, the CMMI steward, must review and accept results before appraised organizations will be allowed to publicly announce the appraisal results or use the information in a formal proposal to the government or other acquirer. This allows the SEI to identify and correct any inconsistencies in the appraisal process before the results are declared official.

DoD Contractor ADSs Posted

Firms that contract with the DoD and seek to have a recent CMMI appraisal considered are now required to post their ADS on the SEI's Published Appraisal Report Site (PARS) at < http://sas.sei.cmu.edu/pars/pars.aspx > for government acquirer review. This reporting was formerly optional, at the behest of the contractor. Acquirers are now encouraged to check the PARS site to validate a supplier's maturity level claim, since only validated results are posted on PARS. In addition, if the appraisal was conducted after Nov. 1, 2006, acquirers will be able to gain the appraisal specifics available in Version 1.2 of the ADS, since the use of the new ADS is mandated as of that date.

Lead Appraisers to be Independent

Lead Appraisers from the same organization as the one sponsoring the formal appraisal can no longer grant a capability or maturity level rating to their organization. It was determined by the CMMI Steering Group and sponsors that this independence is necessary to ensure integrity of appraisal results. The requirement applies only to the appraisal lead and not to the members of the appraisal team.

Guidebook for Acquirers Published

Understanding and Leveraging a Supplier's CMMI Efforts: A Guidebook for Acquirers was a major effort to help acquirers benefit from a supplier's use of CMMI while avoiding the pitfalls associated with unrealistic expectations. The Guidebook describes CMMI fundamentals and much of the information summarized in this article to help acquirers effectively use information obtained from a supplier's CMMI effort. It includes explanations of capability and maturity levels and the differences between the two CMMI representations (continuous and staged). It explains more obscure elements of CMMI, such as equivalent staging, high maturity, capability levels, and other terms and concepts that acquirers may encounter in proposals and in everyday dealings with suppliers. Finally, it cautions acquirers and users of CMMI that high maturity or capability ratings alone are not a guarantee of program success. The Guidebook, released as part of the CMMI Version 1.2 Product Suite in March 2007, is available at < www.sei.cmu.edu/publications/documents/07.reports/07tr004.html >. A Defense Acquisition University Continuous Learning Module is anticipated based on the *Guidebook* to help further deploy this knowledge across the workforce.

Next Generation of Improvements

The significant effort by DoD and industry to identify issues, evaluate solutions, and upgrade the CMMI to the Version 1.2 Product Suite has addressed many of the shortcomings of CMMI Version 1.1 and its application. Both model and appraisal integrity have been significantly improved. Disclosure of appraisal information has been enhanced. All CMMI training—especially lead appraiser training—has been updated, and special training with certification is required for lead appraisers conducting a high-maturity appraisal. Maturity ratings will require update after three years. Finally, the release of the Guidebook provides the acquisition community with the ability to understand and leverage the practices of their supplier's investment in process improvement.

The CMMI provides a set of best practices to be employed by the supplier. It is essential that DoD and industry use this capability in the right manner, with appropriate measure, in order to realize its benefit. Efforts for the remainder of 2007 will focus on the next generation of CMMI process improvements, which will include streamlining both the model and the appraisal method using input from a series of workshops.

Comments and questions should be addressed to ATL-SSA@osd.mil.

Source Selection: Communicating with Offerors

Alexander R. Slate

All too many people are unfamiliar with source selections. This article provides a brief introduction to the topic for non-contracting officers. As with any advice, it is strictly that—advice, not a hard-and-fast set of procedures.

Basic Source Selection Types

The purpose of source selection is to evaluate the proposals sent by offerors in response to a Request for Proposal. The goal is to obtain an understanding of each offeror's capability to accomplish the work required by the government and thus to award a contract to the offeror providing the best value to the government.

Exchanges are any exchange of information in the midst of a source selection between the government's source selection team and the offerors.

That best value may be determined by different factors, depending upon the acquisition strategy adopted by the government. Typically, source selections fall into three different types:
- Lowest Price Technically Acceptable (LPTA)
- Price-Performance Tradeoff (PPT)
- Full-Trade-off Best Value.

In general, irrespective of source selection type, there are four different factors that are of interest to us: mission capability, proposal risk, past performance, and cost/price.

Mission capability addresses the question, "How does the offeror propose to do the work required by the government?" Mission capability will generally be divided into a number of subfactors, which include technical aspects, program management aspects, and sometimes business aspects of the acquisition (such as subcontracting).

Proposal risk answers the question, "What is the likelihood of the offeror actually being able to perform the work proposed in response to mission capability?" In more official terms, proposal risk focuses on weaknesses or flaws in the proposal that increase the risk of unsuccessful performance.

Past performance answers the question, "Historically, how has the offeror lived up to past commitments?" In other words, did the offeror do what they said they would do and how well did they do it?

Cost/price addresses, "How much will the government pay for the work proposed?"

Lowest Price Technically Acceptable Source Selection

In an LPTA source selection, the government determines mission capability as either acceptable or not. As a general rule, neither proposal risk nor past performance are evaluated. We award the contract(s) to the offeror with the lowest price from the list of offerors who received acceptable ratings on mission capability. Note that even though the literal name of this type of acquisition includes the words "technically acceptable," the technical factor referred to in the title may also cover program management and business aspects of the acquisition.

Often, provided there is at least one (and preferably more than one) technically acceptable offeror, we do not enter into discussions with the offerors except to perhaps allow them the opportunity to improve on their proposed cost/price. LPTA source selections are generally used when the government feels that the work required is fairly straightforward and there are a number of different potential offerors who can accomplish this work.

Price-Performance Tradeoff Source Selection

PPTs are similar to LPTAs, except that there is often a history that the expected offerors may have issues with past performance, or that the work to be accomplished may not be quite so straightforward. Again, mission capability is either acceptable or not, and proposal risk (if evaluated) is also judged as either acceptable or not. The difference between LPTAs and PPTs is that the government may choose not to accept the lowest cost/price and instead may trade off a higher cost/price for historical proof that the offeror has met or exceeded past commitments for similar types of work.

Full-tradeoff Best Value Source Selection

Full-tradeoff Best Value source selections, also known as Full-spectrum best value source selections, differ greatly from either LPTAs or PPTs. Here all four factors are evaluated using color ratings (see "Best Value Source Selection: The Air Force Approach," Parts I & II, *Defense AT&L*, September-October 2004 and November-December 2004). Acceptable/non-acceptable ratings are not used. Typically, the work here is much more complex, and great differences are expected between the work proposed by the different offerors. The point is that the government is willing to pay more for any or a combination of the following: proven past performance, technically or programmatically superior proposals, or lower risk proposals.

Exchanges

Exchanges are any exchange of information in the midst of a source selection between the government's source selection team and the offerors. It is a common semantic mistake to call all exchanges of information "discussions," but more precisely, there are three types of exchanges:
- Clarifications
- Communications
- Discussions.

The government generally states that it reserves the right to award contracts without the third form of exchange—discussions. Although this doesn't always occur, it is important for offerors to submit their absolute best proposal when responding to a Request for Proposal. If the government can conduct only a few clarifications with the offerors and then make an award without dis-

cussions, it truly is more advantageous to both the offerors (they do not continue to spend money) and the government.

The first round of exchanges generally consists of clarifications and sometimes communications. Clarifications, most typically, simply address issues that the evaluators feel are the result of typographical errors. Communications are used to help establish the competitive range. In addition, they may be conducted to enhance the government's understanding of proposals or allow reasonable interpretation of proposals. In either case, the information provided by the offerors in response can only more fully explain the proposal but cannot substantively change the proposal.

> Dragging source selections out isn't in anyone's best interest; however, the government wants to receive good quality services, supplies, and equipment, and it wants to provide all potential offerors a fair opportunity to win the contract.

The second round of exchanges may include clarifications and communications somehow left out of the first round, but this round is referred to as actually entering into discussions with the offerors still remaining in the competitive range or arena. Discussions address those areas of an offeror's proposal that are deficient (in other words, not acceptable). The big difference between discussions, clarifications, communications, is that an offeror's response to discussions may materially revise the proposal.

At the end of discussions, it is common to allow all remaining offerors to submit one Final Proposal Revision (FPR). This ensures all of the responses to evaluation notices during discussions are captured in the proposal received by the government. Once the FPR is received, the government evaluators conduct one final evaluation and then a decision for award can be made.

What about situations where all the issues (other than cost/price) do not get addressed in the first or second round of exchanges? How many times should we go back and allow the offerors the opportunity to address proposal shortcomings?

The answer is that it depends. If the problem was that the government didn't communicate its concerns in a clear enough fashion to enable an offeror to respond properly, then the government should restate the concern in another round. If, however, it is judged that the questions were clearly asked and the offeror simply doesn't understand or didn't develop good answers, then the government should simply accept the responses for what they are and not institute another round of exchanges.

Philosophically, the whole goal of the source selection is to find the issues that differentiate one offeror from another. The ability to understand or not understand the point of discussion or understand the problems can be the differentiator, in and of itself. It is a very important point that in a full-trade-off best value source selection we are not attempting to "equalize" the proposals and simply get it down to a matter of who has the lowest cost/price.

As a rule, the government shouldn't institute another round; however, there are situations where there is a very clear and pressing reason for the government to do so. It is important to note that just getting to the lowest cost/price is not a pressing reason. If that were the case, there would be no need to conduct a best value source selection in the first place.

Enabling multiple sources of supply for critical items is a policy type of pressing reason. If the cost/price of the offerors with acceptable proposals is way over the program's budget, there is no possibility of rescoping the effort to make the program affordable, and the need for the system or service is urgent, then that could be considered a pressing reason to continue with discussions. The idea is not to get offerors to lower their cost/price, but rather see if a proposal that is deficient can be "cured" of its problems. The point is not to have leading questions to suggest the "right answers" to the offerors. The government might or might not be successful in obtaining an acceptable and affordable offer, but it could be worth a shot.

If all the acceptable proposals are too expensive, and the need for the program is not absolutely urgent, then perhaps the best thing to do would be to admit that the source selection needs to be restarted or that perhaps the timing is not right for the program and more scientific and technical work is needed before we can run source selection.

Not a Definitive Guide

The above is only a guide to what exchanges are about. In any given source selection your acquisition facilitator or business advisor will help your team determine the right type and number of exchanges. Remember that time is money, and dragging source selections out isn't in anyone's best interest; however, the government wants

Clarifications, Communications, and Discussions: The Differences

Clarification

The problem: On page 15, the offeror states the need for 20 engineers, yet on page 18, there is a reference to 22 engineers. One of these must be a typo.
A sample question: "On page 15 of your proposal, you discuss the need for 20 engineers, and on page 18, you reference 22 engineers. Is one of these numbers an error? If so, which number of engineers is correct?"

Communication

The problem: On page 30 of the proposal, the offeror discusses a procedure for resolving problems that might arise but doesn't address who is responsible for what. Without that information, you can't determine if the procedure would work or not.
A sample question: "Page 30 of your proposal discusses a problem resolution procedure, but procedural responsibility is not assigned. Who is responsible for the different steps outlined in your procedure?" (The key is that the answer can only make the procedure unambiguous, not change the procedure.)

Discussion

The problem: The offeror is proposing a widget that weighs 50 pounds. The RFP specifies a widget that weighs no more than 45 pounds.
A sample question: "On pages 25, 27, and A-34 of your proposal, you specify delivery of a widget that weighs 50 pounds. Page 7 of the RFP specifies a maximum widget weight of 45 pounds. Currently, your proposal is deficient. Please address this issue."

to receive good quality services, supplies, and equipment, and it wants to provide all potential offerors a fair opportunity to win the contract; exchanges are often necessary to bring about a win-win.

As an aside, I cannot stress enough the importance of choosing the correct type of source selection for a particular program. Don't make the mistake of choosing a full tradeoff best value source selection when a PPT or LPTA would accomplish what is necessary and be much more efficient. Full-up source selections can be very costly in terms of time and manpower. Efficient program management is in the best interests of government and offeror.

Manager or Leader?

Wayne Turk

> A key leadership trait is the ability to inspire "followership."

Theorists have been asking for over a hundred years which is better for a company (or a project in this case), a good manager or a good leader? And guess what: As with most "theoretical" questions, they disagree on the answer. Maybe there is a practical answer that gets away from the theoretical. We'll get to that later.

They're Different—Ask Anyone

Before we can get to an answer, we should look at what people see as the differences between a leader and a manager. Most people will agree that there's a difference between a manager and a leader, but go a step further and ask them what that difference is, and they usually begin to hem and haw. They may have a mental image, but they can't put it into words; they just don't seem to have a good definition.

There is a management proverb that says "Managers do things right, while leaders do the right thing." It's one of those pithy sayings that sound good, but it doesn't really tell us anything. So let's see what some of the experts say.

These are a consolidation pulled from many sources and are hard to attribute to a single expert in many cases.

One convenient answer is that leadership is intangible but includes charisma. Some say that it is an indefinable something that you are born with. Is that right? Like the opening question, we'll put off the answer until later.

Another answer is that managers do things by the book and follow policy, moving up in the organization based on their actions and successes. On the other hand, leaders follow their own intuition and may not have an authorized position in the hierarchy. According to some, a manager may have obtained his position of authority through time and loyalty to the organization or upper management, not as a result of his leadership qualities. While this has the feel of correctness, everyone can think of multiple exceptions.

"Experts" also say that managers are reactive to whatever situations happen to crop up. When problems develop, they respond. When they pursue action, it's on familiar terrain or through time-tested strategies. A leader is more emotional than a manager. A leader doesn't just react and respond but takes the initiative and generates action. A leader doesn't just say, "Something should be done"; he or she ensures something actually *gets* done. Leaders have the skill to infuse logic, data, and analysis with emotion, pride, and the will to win.

Another so-called difference: A leader is someone whom people follow through choice, but a manager must be obeyed. Theodore Roosevelt probably summed up this philosophy best when he said, "People ask the difference between a leader and a boss. … The leader works in the open, and the boss in covert. The leader leads, and the boss drives."

One more occasionally given answer to the difference is that the leader is innovative and creative, while the manager is a traditionalist. Who says? In project management any manager who is not innovative is probably not going to survive. Yes, he may use traditional tools and ideas, but in most projects, innovation is necessary for success.

Turk is a retired Air Force lieutenant colonel and defense contractor, and now an independent management and project management consultant with Suss Consulting. He is a frequent contributor to Defense AT&L.

PMs have to deal with some combination of unreasonable expectations, unrealistic schedules, unworkable budgets, too few resources, impossible customers, and almost daily crises. Without creativity, innovation, and flexibility, they stumble and frequently fail.

"You manage things; you lead people," said Adm. Grace Hopper. The definition is often quoted and is another one of those sayings that sound right, even philosophical. But it's wrong. People are a resource, too, and we can't ignore the management of people.

What Makes a Manager a Leader/Manager?

That leads us to the true purpose of my article: the answer to the original question as to which is better. The answer is … drumroll … neither. The best answer is that a good leader and good manager can, and should, be one and the same. Leadership—and by that I mean being a good leader—can be learned. Sure, there are born leaders, but even more leaders are made. Let's look at some characteristics and traits of a good leader, and how you can incorporate them into your management practices to become a leader/manager.

First off, a leader must choose to lead. The project manager is put in a position of authority, but only he or she can choose to be a leader. The choice takes some work. It means being the example, setting the pace, providing vision, being an inspiration, and more.

A leader is generally a "people person." Gandhi put it this way: "I suppose leadership at one time meant muscles; but today it means getting along with people." Leaders communicate with their teams and the organization. They make their passion and enthusiasm for the team or organizational vision and mission contagious so that others catch it and become true believers. They fire the imaginations and build the confidence of people with whom they are associated. According to Jim Clemmons, "Leaders help people believe the impossible is possible, which makes it highly probable."

A leader provides opportunities for people to grow, both personally and professionally. He looks at their capabilities and skills. He uses those skills for the project, but at the same time looks for ways to enhance them, whether through experiences, classes, or just the sharing of information.

A leader makes other people feel important and appreciated. She excels at creating opportunities to provide rewards, recognition, and thanks to her staff. A leader creates a work environment in which people feel important and appreciated. The true leader gives the staff public credit for contributions. Mary Kay Ash, head of Mary Kay Products, describes it succinctly: "There are two things people want more than sex and money—recognition and praise."

Powerful, positive recognition makes people feel important. It encourages them to contribute even more in the future. Good leader/managers put the praise in writing. A thank-you note or a written letter of recognition to the person, with a copy to the recipient's file, magnifies the impact of the recognition.

The good leader/manager uses vision and creativity to establish an environment of continuous improvement, making things better for his people, the project, and the organization.

The Importance of Followership

A key leadership trait is the ability to inspire "followership." A true leader makes people want to follow her. The successful leader/follower relationship inspires people to become more than they might have been without the relationship. Following an effective leader, people accomplish and achieve more than they may ever have dreamed possible.

Every manager who aspires to become a leader/manager must believe that people are important. When you act as if you believe people are important, then people will feel important. And that induces loyalty.

Let's go a little further on building loyalty. Groups are more loyal to a manager who is also a leader than a manager who is not. The leader/manager fosters loyalty by his sense of responsibility—taking the blame when things go wrong; celebrating group achievements, even minor ones; giving credit where it is due; sharing recognition; following through on promises; keeping the team informed; and all of those things that a leader provides.

Practicing simple courtesy is a powerful relationship-building tool that can assist the leader/manager. Pay attention to people and use common courtesy. Say good morning. Ask people how their weekend was. Be interested, but be sincere. Small talk is great, but listen to what your coworkers, peers, and staff members have to say. Give your full attention to the person seeking your attention. If you can't pay full attention and listen actively, set a time to meet with the person when you can. You can gain much information from the ideas and opinions of others, and you make people feel special when you listen to them without distraction.

People need to feel included, to feel in the know and a part of the actions and processes of the project. The good leader/manager provides that inclusion, which goes beyond the listening and feedback. The leader/manager shares information and plans with the team.

DoD's Acquisition Chief To Step Down

Gayle S. Putrich and Elise Castelli

Ken Krieg, the Pentagon's top acquisition official, resigned his post June 6, citing a desire to spend more time with his family.

Appointed as undersecretary of Defense for acquisition, technology and logistics in 2005, Krieg, 46, has worked in the Pentagon since 2001. Before taking on responsibility for the more than $100 billion defense acquisition machine, he worked with the senior executive council, developing initiatives to improve Defense Department management and organization. In his life before public service, Krieg was the vice president and general manager of International Papers' office and consumer paper division.

When the announcement came, Krieg was on the beach —at Normandy, honoring the 63rd anniversary of D-Day.

Krieg will leave the Pentagon on July 20 or when a successor is named, according to a Defense Department statement. No acting secretary was named at the time of the announcement.

The process to replace Krieg must be kicked off by the White House, and Defense Department officials said there has not yet been any indication of when a nominee for the president-appointed, Senate-approved post will be named.

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When there are problems, the leader/manager looks at all the options. Even if the traditional response to a problem may work, good leader/managers might still try something different for better results. By trying variations of standard actions, you may find new and better paths to success. If the new responses don't work, they don't have to be used again (although they might be tried in other circumstances); if they work better, you have evolved into more of a leader/manager.

Finally the great leader/manager has integrity and practices good ethical decision making. This builds trust—and trust within the team is critical. The trust must go both ways. The leader/manager must trust his people and the people must trust him. Leading by example can engender that trust.

Born or Made

While leadership and management are not the same, they can and should be combined. Project managers must be leaders to ensure the success of their people, projects, and the overall organization.

Some leaders are born; others are made. With effort, it is possible to learn to lead. It may not be the charismatic leadership that is pictured in books and movies, but it is the everyday kind of leadership that gets results.

The following are some leadership guidelines for the project manager:
- Have goals and be enthusiastic about reaching those goals. One of the goals must be project success.
- Set the example in actions, ethics, and work habits.
- Be creative, innovative, and flexible in problem solutions and approaches.
- Communicate—goals, values, expectations, and project status.
- Listen. That is the other side of communication and how you learn from others.
- Recognize and reward your people. Praise in public; correct in private.
- Create an environment of trust.
- Be courageous. Stand up for your people and your beliefs.
- Be loyal to your people and your organization.

Following these guidelines in your project and, for that matter, in your life, will mark you as a leader. Being a leader won't guarantee success on a project, but it sure helps—with your people behind you, working hard to support you in meeting your goals and winning your praise, how can you lose?

National Security Personnel System

Effective Management Tool for the Mission-centered Workforce

Marcia E. Richard

It is obvious from "Developing a Capable, Agile Civilian Workforce: Human Capital Strategic Planning and Management in Action" (*Defense AT&L*, May-June 2007) that senior leadership is optimistic about the progress being made in shaping and reshaping the future federal workforce and that the National Security Personnel System (NSPS) is a management tool they will be relying upon heavily to assist them in accomplishing their human capital strategic planning missions. As an acquisition professional about to begin my own conversion to NSPS, learning as much as possible about the system has become a career imperative. This article shares my findings and observations on the new personnel system with the DoD acquisition community.

The NSPS Requirements Document was approved by Gordon R. England, NSPS senior executive, on Sept. 24, 2004. The NSPS is enacted by Section 1101 of the National Defense Authorization Act for Fiscal Year 2004, Public Law 108-136 (Nov. 24, 2003), and is contained in various subsections of Section 9902 of Title 5, United States Code. According to the document, NSPS "allows the Department of Defense to establish a more flexible civilian management system that is consistent with the human capital management strategy. The system allows the Department of Defense (DoD) to be a more competitive and progressive employer at a time when the country's national security demands a highly responsive system of civilian personnel management."

An Outcome-focused System

Mary Lacey, program executive officer for NSPS, thinks that there are several benefits to NSPS. She points out two: It is outcome-focused, aligning people with work outcomes; and it forces the conversation between the supervisor and employee. "The system permits people to be paid for what they do and allows employees to be in charge of their own destinies," she says. Also, because the Department has changed so much over the years and is continuing to change at a very fast pace, the ability to reclassify positions and create new occupational series, as required, provides the flexibility needed to support our
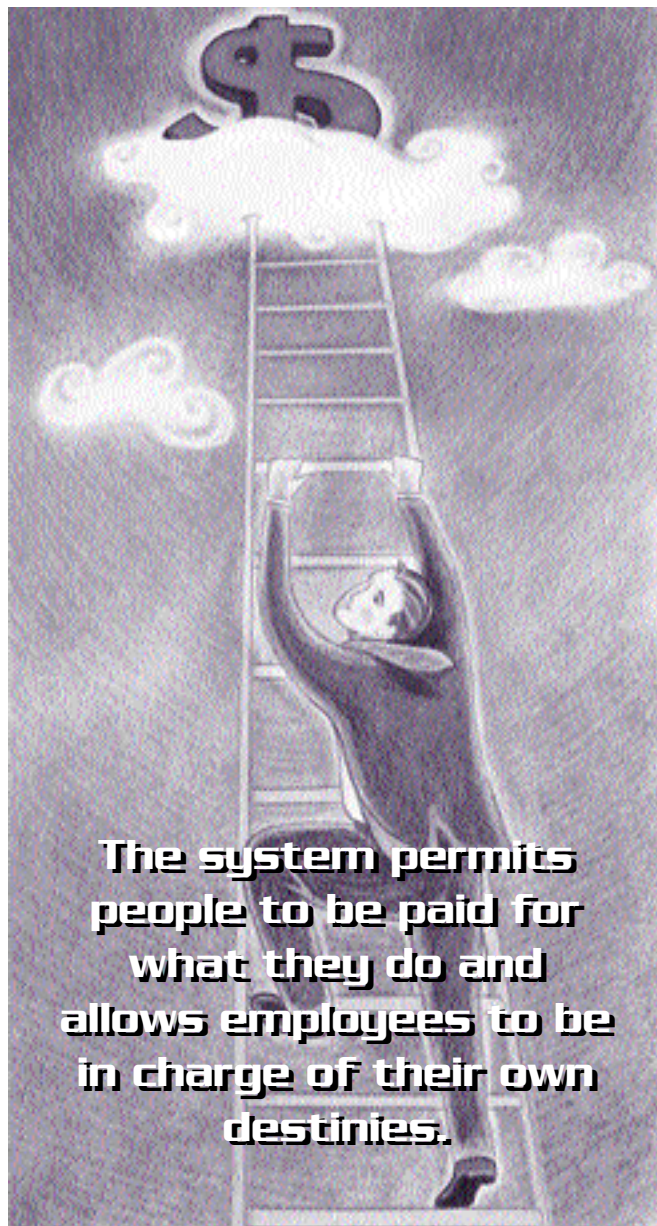
The system permits people to be paid for what they do and allows employees to be in charge of their own destinies.

agile and evolving workforce. Under NSPS, employees are required to establish measurable goals with timelines. "Part of the power is the shared understanding of those

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Richard *is currently on the staff of the Assistant Secretary of the Army (Acquisition, Logistics and Technology) in the strategy and performance planning division.*

goals between supervisor and employee," says Lacey. "No secrets. Everyone knows up front what is expected of him or her, and it is all tied back to the mission of the organization." Lacey emphasizes the importance of properly understanding how to use the management tools provided under the system; and, she believes that once learned, the required expertise will come with time and practice. She understands that change can be difficult but states that senior leaders and managers own the system and must ensure that it is supported with champions throughout their organizations to help effectively institutionalize the change.

Transition Easier from AcqDemo

Meg Hogan-Roy is the human resources director at the Defense Acquisition University. She explains that as of March 2007, 230 DAU employees had received NSPS training and approximately 170 were converted to NSPS as of February 2007. One of her biggest challenges, she says, was to ensure that training was accomplished within a reasonable window. She further elaborated on the specifics of the training, which was personalized for DAU: It lasted 2½ days with a half-day dedicated to employees writing smart objectives with their supervisors. DAU had been participating in the DoD Civilian Acquisition Workforce Personnel Demonstration Project (AcqDemo) for the past four years, and Hogan believes that the transition to NSPS will be easier because of the similarities of the two systems: pay-for-performance and pay-banding, for example.

Hogan acknowledges that there has been much controversy over the meaning of the "Valued Performer" level—an employee who meets all the criteria of his/her stated goals and receives a performance rating of "3." She feels there will be an adjustment period because many employees will have a difficult time accepting a rating of 3 as good; however, she believes that with time and open discussion on the significance of the performance levels during training, the negative perception of the number will eventually go away. She also feels that NSPS has some improved features that were not a part of AcqDemo, the most significant being that employees start by writing their objectives for the year, not just their expected output. In Hogan's opinion, "The re-emphasis on communication and relationship building will be the true key to the success of NSPS."

Jeff Birch, DAU's Director of Small Business, Learning Center of Excellence is a DoD employee who has participated in both the General Schedule (GS) and AcqDemo systems, and is now participating in NSPS. Birch states, "Without a doubt, I prefer a pay-for-performance system over the old GS system, and I think any employee who is a high performer will agree." He, too, thinks that having been in AcqDemo has made transitioning to NSPS easier, and the NSPS training provided to DAU employees was excellent.

However, Birch did stress that upfront work is required (learning new forms, formats, and systems, etc.), but he considers it "necessary growing pains for implementing change."

NSPS Forces Communication

Elliott B. Branch is executive director for contracts, Naval Sea Systems Command (NAVSEA). NAVSEA employees converted from GS to NSPS during the implementation of Spiral 1.1 in May 2006. "NSPS is beneficial because it has more flexibility for hiring, promoting, and building career paths than the old GS system," he says. He believes that NSPS, a pay-for-performance system, forces communication that was not previously required, but—ideally—should always have existed: "NSPS turned the implicit to the explicit, which is a good thing. When employees understand how they contribute and where they fit in the big picture, performance improves." Under NSPS, employee performance is directly linked to the supervisor's performance as one of the supervisor's goals. This too, according to Branch, should always have been the case, since successful employees make their supervisors successful.

There has been some mention of including senior executives in NSPS, and Branch believes that because SESers in the Department are already in a pay-for-performance system, the conversion should not have a substantial impact one way or the other. "NSPS is a good management tool, and it is allowing employees to be adequately compensated for their performance in support of the mission," he believes, "However, we must not lose sight of the fact that ultimately it's not only about the civilian workforce in the Navy, it is also about the people we send to sea."

Acceptance Not Yet Universal

While leadership is championing NSPS and many members of the workforce feel it will be a more equitable pay system, a significant portion of the workforce remains wary—as is to be expected when any major change is introduced. As noted, employees transitioning from Acq-Demo to NSPS appear to be experiencing a much smoother transition than those who are entering NSPS from the GS system because of the similarities between NSPS and AcqDemo.

One of the NAVSEA engineers who converted from the GS system to NSPS during the spiral 1.1 conversion says that during implementation, NSPS training instructors described the system to NAVSEA employees as a tool to reward top-performing workers, yet to date, "the system's ability to recognize and acknowledge exemplary employees is extremely nebulous at best." He believes that training has been inadequate under NSPS, resulting in inadequately prepared workers for the mid-year trial run (otherwise known as Mock Payout) conducted in June

2006, where supervisors rated the employees on their mid-year performance and notified them of their ratings (1-5) and subsequent shares (0-6). At no time during the training, he says, was the share value defined and adequately discussed. He says that many of his colleagues share his assessment of the first NAVSEA NSPS rating cycle—"nothing more than a writing contest." He feels it is unfortunate that NAVSEA conducted the final closeout appraisals for spiral 1.1 before offering classes to train employees on how to develop and prepare satisfactory self-evaluations for NSPS.

Nancy Maturo, NAVSEA NSPS Project Manager, responds to the engineer's concerns by saying that shares were not assigned during the mock (which took place in August 2006, not June), only a rating. She also emphasizes that training, town halls, and constant feedback were provided to employees throughout the process. In fact, as a result of the evaluations received during the mock, workshops on how to write effective self-assessments were offered prior to the end of the year rating cycle.

An Army civilian employee stationed at Fort Belvoir, Va., and currently in the GS system recently received the NSPS training. She has not yet converted to NSPS and isn't looking forward to the conversion. Her opinion is that unfair distribution of funds (pay increases, awards) are more likely under pay-for-performance systems than under the GS system because under NSPS, supervisors have more latitude and authority over how money is distributed than the annual automatic pay raises that were distributed across the board without risk of favoritism.

Effective Management Tool—If Properly Implemented

Leadership believes that NSPS is an effective management tool that will assist managers in hiring, promoting, and properly compensating employees for the work they perform in support of DoD's mission-centered civilian workforce.

For NSPS to work, however, three things are imperative. First, employees and supervisors must have that upfront vital conversation in which they agree on exactly what is expected of the employee and on the support the supervisor is expected to provide each employee in helping him/her to meet stated goals. Second, proper and timely training is imperative. And third, leadership must be mindful of the fact that change is always difficult. Any new system will be regarded with suspicion before it is embraced. If the workforce is to buy in, their fears and concerns must be promptly, honestly, and convincingly addressed.

The author welcomes comments and questions and can be reached at marcia.richard@hqda.army.mil.

Implementing Item Unique Identification in DoD

"**M**aking a Difference for Asset Visibility, Management, and Accountability" (*Defense AT&L*, May-June 2007) explained the Department of Defense program for Item Unique Identification—IUID—a capability that marks items with a globally unique identifier using high-capacity machine-readable 2-D marking.

How are the Services and OSD progressing in implementation of the program?

Navy Leverages IUID for More Efficient and Effective Missile Tracking

Cdr. William R. Hayes, USN • Robert A. Mueller
Thomas Steffen • Mark R. Sunday

Under various laws and regulations such as the Arms Export Control Act (AECA) and Foreign Assistance Act (FAA), the U.S. government has a continual responsibility, from time of title transfer until eventual disposal, to ensure defense articles and services sold and/or transferred to foreign countries are being used for their intended purposes. The Defense Security Cooperation Agency (DSCA) established the "Golden Sentry" Program to ensure proper end-use monitoring of government-to-government transfers. Currently, enhanced end-use monitoring (which has more stringent requirements than regular end-use monitoring and applies to specific variants of missiles and other items) requires annual inventories at storage sites in the foreign countries—a totally manual and labor-intensive process.

Under sponsorship from the DoD UID Policy Office, the Navy International Programs Office (NIPO) executed an IUID— Item Unique Identification—project ("IUID Missile Tracking"—IMT) to leverage IUID asset information and generate shipping documentation, while allowing asset verification for missiles and other assets being sold, shipped and inventoried under the DSCA Golden Sentry Program.

The IMT project demonstrated the ability to capture missile IUID data, seal the missile in its container, create appropriate shipping documents, and observe the IUID-based transactions as the missile is shipped, received, and inventoried. The missile Unique Item Identifier (UII) would be related to its container UII and then related to

a serialized container seal. This data would also cross-reference with the Transportation Control Number. Data would be integrated into existing DSCA programs, including the Security Cooperation Information Portal and Enhanced Freight Tracking System (EFTS).

Through the execution of three demonstrations and the application of Lean Six Sigma principles, the IMT team showed significant process improvements. Automated inventory processing allowed the removal of fork trucks, safety observers, and laborers to open containers for inspection. Data movement was streamlined and replaced manual database updates. Other operational benefits were documented, such as minimized USG time in foreign country magazines and improved visibility from origin to destination. In addition, we expect financial benefits (reduced USG in-country and service program office manpower) and benefits outside direct IUID impact (streamlined Customs processes and host nation inventory processes for example).

> New processes reduced inventory time by 95 percent, inventory cost by 97 percent, and labor expense by 67 percent; inventory visibility increased to 100 percent annually; data accuracy improved to 100 percent.

The results were impressive: New processes reduced inventory time by 95 percent, inventory cost by 97 percent, and labor expense by 67 percent; inventory visibility increased to 100 percent annually; data accuracy

improved to 100 percent. In addition, the use of seals greatly improves security during transportation; and provides visibility at title transfer, shipping, and freight forwarding. It also allows direct integration into EFTS and reduces risks of personnel injury and damage to missiles. A conservative business case analysis showed annual (unburdened) labor savings of $335,000. The additional savings in travel expense, safety, and significantly increased homeland defense security are compelling.

Recommendations going forward include adoption of the new IUID-based processes by the DSCA; production integration with EFTS; contract modifications to accomplish IUID/seals at original equipment manufacturer plants for new production; and field retrofits of bar-coded container seals to be accomplished during follow-on end use monitoring inventories.

Hayes is director of logistics policy at Navy International Programs Office. Mueller is founder and CEO of BNet Corporation, which provides wireless solutions for real-time asset visibility. Steffen is a retired Navy Supply Corps captain and president of Paladin Logistics Inc. Sunday, engineering director at Raytheon Missile Systems, is responsible for special projects for Mission Support.
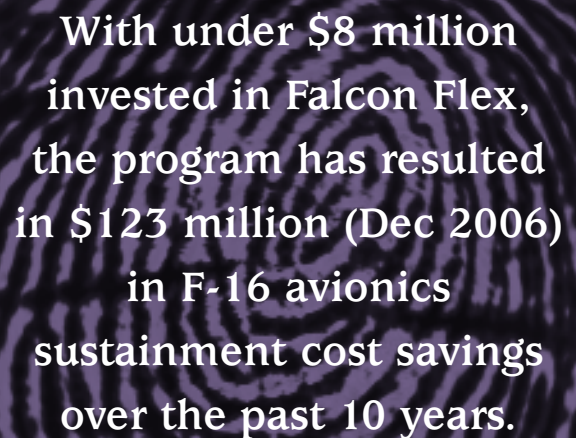
Falcon Flex: Turning Maintenance Information into Air Power
Kevin J. Berk

"Can we improve the reliability and availability of F-16 avionics while reducing costs?" This is the question that drove the creation of the Falcon Flex program. In combination with the Defense Repair Information Logistics System (DRILS) maintenance data collection tool, Falcon Flex was established to develop business practices, using IUID/serial number tracking-based techniques, to enable disciplined tracking and analysis of serialized parts. This improved serialized maintenance data collection, at the point of maintenance, enables meaningful analysis to generate "actionable intelligence," which is used to identify failure trends and perform root cause analysis to increase the effectiveness of F-16 avionics sustainment. DRILS and Falcon Flex have made great strides in capturing and utilizing maintenance data respectively to lower costs and increase aircraft availability to the warfighter—effectively turning maintenance information into air power. DRILS facilitates the documentation and analysis of maintenance data with an easy-to-use interface and serial number tracking capability. The tool, which began humbly as a Microsoft Excel® spreadsheet in the depot shops, has evolved into a sophisticated Web-based application available worldwide that allows technicians in the field and at depots and contractor repair facilities to easily record and retrieve maintenance data by serial number. The focus of this powerful application is at the most vital point—the point of maintenance. This serialized maintenance data collection enables the integrated product team en-

gineers to determine root causes of failures for both the part-number family and specific units, isolating the low performers.

Falcon Flex is a business practice that was developed in response to the Air Force's continual Leaning of its supply chain. The performance-based logistics (PBL) practice seeks to reduce weapon system sustainment costs and increase availability. Falcon Flex uses performance-based acquisition to effectively manage and reduce the impact of obsolescence by concentrating on the acquisition of improved parts rather than repeatedly buying parts that continue to fail or are obsolete.

With under $8 million invested in Falcon Flex, the program has resulted in $123 million (Dec 2006) in F-16 avionics sustainment cost savings over the past 10 years.

The Falcon Flex program was created to meet several key goals: reduce sustainment costs, increase system reliability, increase aircraft availability, reduce obsolescence concerns, and enhance system performance. Seven business practices comprise the Falcon Flex program:

- Obsolescence Research Support. The program supports obsolescence research by providing F-16 Diminishing Manufacturing Sources and Material Shortages (DSMS) research and resolution focusing on high-failure DMSMS items.
- F-16 Avionics Root Cause Analysis. The program employs analysis of failures at the line-replaceable unit (LRU), shop-replaceable unit (SRU), and discrete part level.
- Bad Actor F-16 aircraft identification. Falcon Flex provides a quarterly analysis of aircraft producing the greatest number of LRU failures. The analysis of data behind this report helps maintainers identify underlying problems either with the aircraft or LRU.
- F-16 Avionics Can Not Duplicate (CND) / No Faults Found (NFF) identification and resolution. When symptoms

of a problem cannot be reproduced during testing, valuable maintenance resources are tied up; many times, these problems are dismissed only to recur later. Falcon Flex analysis significantly contributes to identifying and resolving CND/NFF problems using DRILS serialized repair history from the field and depot (Air Force and contractor).

- Test Station anomaly investigation. Falcon Flex develops techniques to collect and analyze serialized test station LRU and SRU results to resolve anomalies between testers at each level of testing.
- Business Case Analysis generation, support, and tracking. Falcon Flex generates LRU repair cost analysis on a semi-annual basis providing important information on savings as well as a baseline for future repair cost projections. Falcon Flex initiatives account for approximately 80 percent of the total F-16 reduction in total ownership cost savings being reported to Air Force Materiel Command.
- Performance-based Acquisition Support. PBA leads to procurement of improved parts rather than parts that continually fail. Falcon Flex support is provided to define and prepare the specifications needed for product performance based procurement.

With under $8 million invested in Falcon Flex, the program has resulted in $123 million (Dec 2006) in F-16 avionics sustainment cost savings over the past 10 years. Savings are projected to grow to more than $1 billion through 2024, resulting primarily from the avoidance of costs that field units are charged for exchanging unserviceable units for serviceable units.

Although savings is a primary motivator for the program, Falcon Flex also directly supports weapon system availability goals of the Air Force Smart Operations for the 21st Century (AFSO21). From the start, the Falcon Flex program realized the value of uniquely identifying parts by serial number to solve supply chain problems. The Falcon Flex program and its utilization of the DRILS maintenance data collection tool is a solid model for the Air Force as it pushes ahead with the implementation of serialized item management. The goal is to stop buying high-failure parts and to reduce the time to procure improved parts which in turn increases the reliability and availability of weapon systems while reducing sustainment costs.

Berk is DRILS program manager and has over 20 years of program/project management in both public and private sectors.

Army Successes in IUID
Dianna Woody

2006 was a very busy year for the Army in the implementation of IUID. Candidate lists of items to be marked with IUID were refined, and the marking process began

on major programs. The DFARS rule has been included in new solicitations for which there are candidate items/equipment. Marking has been integrated into re-setting the force (RESET) and has begun for initial programs; a plan for expansion is in place for others. Government-furnished materiel marking is in progress at contractor facilities.

The Abrams tank is a successful pilot program. Over 1,300 parts were identified for meeting the criteria for IUID marking. This marking is currently being accomplished through a phased implementation. General Dynamics Lima plant is marking the end item, and the Tallahassee plant is working with line-replaceable units using the dot peen as the direct part mark using Construct 2.

In August 2006, 14 M9ACE vehicles were inducted into the Army's recapitalization program and 13 vehicles in RESET. There were 19 components identified for marking plus the end item. In October 2006, 119 M113 family of vehicles began going through depot maintenance at Anniston Army Depot, Ala. New data plates with direct part marking are being applied during this process.

Initiatives at Red River Army Depot, Texas, include the purchase of A2B Tracking Solutions software, mobile laser etch cart, verifier, and computer with screen; and the marking of 1,829 Humvees during its Recapitalization (RECAP) Program.

The Tank Automotive Research Development and Engineering Center is developing the product data infrastructure to support the IUID marking, tracking, and exchange between depots, suppliers, and OEMs.

The Tank Automotive Research Development and Engineering Center (TARDEC), Mich., is developing the prod-

uct data infrastructure to support the IUID marking, tracking, and exchange between depots, suppliers, and original equipment manufacturers (OEMs). TARDEC is implementing a standards-based solution for the exchange of as-built and as-maintained configurations of tactical and combat vehicles using the ISO 10303-239 Product Life Cycle Support standard. Using an international standard like PLCS will allow the Army to integrate the UID information exchange not just between the Army's Life Cycle

Management Commands (LCMCs) and the OEMs, but also to and from the DoD IUID registry. TARDEC is also implementing a methodology called Federated Army Lifecycle Collaborative Enterprise (FALCON) to integrate engineering data from as-designed configurations with logistics maintenance and support data using IUID. A pilot implementation on the humvee is currently in process. Leveraging the successes of the T700 engine pilot, where equipment was purchased to mark the T700 engines at Corpus Christi Army Depot, Texas, CCAD has demonstrated their ability to create and apply data plates and labels. All criteria for initial operating capability (IOC) have been met with the exception of manual intervention with the IUID registry. Software has been developed with formal release scheduled for second quarter fiscal year 2007 after which IOC will be declared.

Tobyhanna Army Depot, Pa. (the Army Center of Industrial and Technical Excellence for Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) and Electronics, Avionics, and Missile Guidance and Control; and the Air Force Technology Repair Center for Command, Control, Communications and Intelligence) employs a metal photo process for creating data plates and labels with the UII for the Combat-Service-Support Automated Information System Interface System (CAISI System), and 20 data plates for the AN/PPS-14 Mine Detector Set. In 2007, Tobyhanna is expecting to create an additional 300-plus data plates for the CAISI System and at least 38,000 data plates for additional communications systems in the near term.

Letterkenny Army Depot, Pa., has developed and applied human-readable and two-dimensional data matrix data plates to 715 Mats over a six-month period. Efforts are ongoing with the marking of "Water Buffalo" environmental control units and humvees. Timely, high-quality, economical marking support is being provided to project management offices. Initial operational capability has been attained with full expectation that a full operational capability will be achieved in fiscal year 2007.

The Product Manager, Joint-Automatic Identification Technology (PM J-AIT) is supporting the OSD IUID Policy Office with a project involving the structured demonstration of imagers attempting to read a spectrum of data matrix mark use cases submitted by commercial industry and the Services. The result will be an objective document identifying the commercially available imagers that are capable/incapable of reading data matrix marks with specific characteristics. Concurrently, PM J-AIT has worked with the depot community, providing Anniston Army Depot with its initial RESET marking capability and Red River Army Depot, Texas, with marking apparatus to support multiple depot lines.
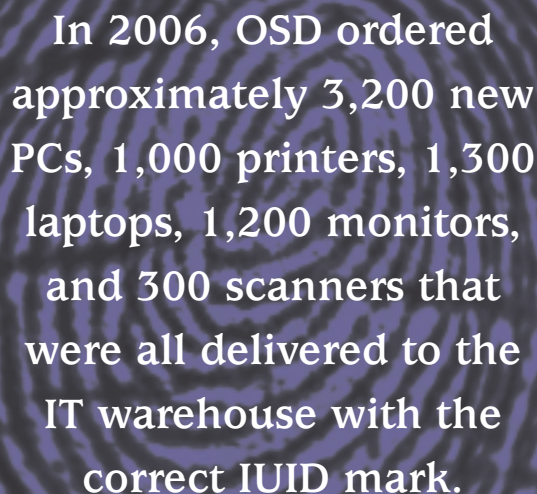
Woody served as an Army logistician in the Office of the Deputy Assistant Secretary of the Army for Integrated Logistics Support, until her death in July 2007.

IUID and Dell: Supporting the Office of the Secretary of Defense
Leah Aspell

When Bob Smolinski accepted his position as the Office of the Secretary of Defense (OSD) IT Asset Management Branch Chief in December of 2005, he took on a difficult challenge: how to consolidate 14 different inventory tracking systems into one system that met all the department's needs. Until recently, each of the 14 different components maintained its own IT inventory, and each had a different method for tracking assets. Some components used barcode systems, some had developed a unique numbering system, and a few of the smaller teams effectively "remembered" the distribution of equipment. Despite semi-annual audits by Washington Headquarters Services (WHS), the process lacked a uniform system to track the 38,000 reportable IT assets within and across components.

In 2006, OSD ordered approximately 3,200 new PCs, 1,000 printers, 1,300 laptops, 1,200 monitors, and 300 scanners that were all delivered to the IT warehouse with the correct IUID mark.

As soon as Smolinski understood the system requirements and challenges ahead, he immediately thought of IUID, a system for distinguishing a single item from its

identical counterparts through the use of an identifying mark or label, and contacted the UID Policy Office.

Once IUID was determined to be the appropriate solution, the team immediately began to develop an IUID implementation plan. Because they were designing a new system, the OSD team had unusual flexibility to choose the methods and technology that would best suit the application without having to consider multiple restraints. "We had to establish everything, from getting a warehouse, trucks, and equipment, to the procedures for getting IT assets into and out of the Pentagon," says Smolinski.

Next, the Defense Information Technology Contracting Organization (DITCO) began inserting the existing IUID clause into contracts, and Smolinski contacted several manufacturers to alert them to the new requirement, including Dell.

Dell already had experience with the 2D Data Matrix (a high-density 2-dimensional matrix style mark) from previous customer requirements to apply company-unique asset tags. However, unlike previous requirements that provide little to no direct value to a commercial entity such as Dell, the DoD strategy embraces manufacturer serialization approaches to create the unique item identifier and complies with international standards. This distinction has potential to provide tangible benefits to Dell with greater linkage and value from post-sale customer data.

As Dell began processing the IUID requirement and shipping finished orders to the DoD maintenance facilities, John Medici, a member of Smolinski's team, determined very quickly that the 2D Data Matrix was not IUID-compliant. To correct the situation, Solms immediately assigned a Dell six-person team to solve the problem and re-label the erroneous markings. Within 72 hours of realizing the 2D Data Matrix was incorrect, Dell changed the process to better meet the OSD 2D Data Matrix requirements.

Because of the dedication of Dell and other suppliers, OSD received many properly marked items in 2006. OSD ordered approximately 3,200 new PCs, 1,000 printers, 1,300 laptops, 1,200 monitors, and 300 scanners that were all delivered to the IT warehouse with the correct IUID mark.

OSD expects to keep receiving IUID-compliant IT items in 2007 and beyond. Smolinski does not plan to mark most legacy items because IT inventory rotates relatively quickly. He estimates the majority of legacy inventory will circulate out of the current system in 3-4 years. As this happens, new orders filled by suppliers such as Dell will include the IUID 2D Data Matrix.

Smolinski, with the assistance of Medici, is also beginning to alter OSD processes to incorporate 2D imaging devices to capture the Data Matrix, decode the data symbol, and pass the data to Remedy, where the data are then managed. Remedy is a software package that includes capabilities in change management, asset management, life-cycle inventory, and workflow management. The software will assist the OSD in its efforts to track and properly manage all IT assets. Using this system will not only make these efforts easier to achieve, but will also reduce paperwork for technicians and expedite the repair process.

In 2007, OSD also plans to provide imaging devices to the OSD IT support staff so they can use them to manage the assets in the offices they support. The imaging devices, which are in effect PCs, will also be able to download subsets of data or the entire database, which will be particularly useful for the auditor, a new position Smolinski established. With the increased data management enabled by IUID, the new auditor position will allow for continued and more rigorous auditing of DoD assets.

The team is also currently working with the Defense Logistics Information Services (DLIS) UID office in Battle Creek, Mich., to develop the capability to produce IUID-compliant marks in house and register those marks within the DLIS-hosted IUID Registry. Currently, reportable IT assets purchased with a credit card to fill urgent orders will not have an IUID mark. When the in-house system is complete, the team will be able to mark these assets and track them appropriately. In-house marking/labeling will also be used to mark those few legacy assets that remain after the phasing out of obsolete equipment. It is this effort that will eventually allow for all assets to be marked and managed.

Once fully implemented, this IUID-enabled Remedy system will enhance asset visibility management of IT assets within and across the DoD. IUID will provide the capability to maintain critical data about each item. Remedy will allow OSD IT asset management staff to provide the infrastructure to manage both the information and the assets. The approach increases the level of item visibility to a level that the DoD has never before attained.

Aspell, a consultant with XIO Strategies, provides outreach and communication support to the UID Policy Office, OSD AT&L.

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Continuous Process Improvement Within DoD

David Pearson

> "Cost savings and expense reductions that result from improvements in overall operating effectiveness can be retained by the organizations which generate them."
>
> Gordon England
> Deputy Secretary of Defense

Much of what we do within the Department of Defense is guided by process. We have an acquisition process for developing and acquiring our defense systems, processes for overhauling equipment, processes for submitting travel claims, and so on. Consequently, the effectiveness, quality, and efficiency of our work is very much driven by the processes we use to do our jobs. It is being increasingly recognized in both industry and government that organizations that commit to the continuous improvement of their processes enjoy higher levels of organizational performance.

Within DoD, there have been several disparate initiatives in continuous process improvement or CPI. The Naval Air Systems Command's AIRSpeed program and the Air Force's Smart OPS 21 are just two examples. In our repair depots, there are dozens of examples of how the application of CPI techniques has translated into significant productivity gains, lower costs, and reduced cycle times. DoD is now adopting these best practices and absorbing the lessons learned from these isolated pockets of CPI success. The result is a strategic approach to developing a Department-wide culture of continuous improvement in the areas of reliability, process cycle time reductions, costs, quality, and productivity. In May of 2006, in sup-

port of this new initiative, DoD published the *Continuous Process Improvement Transformation Guidebook*. Significantly, in the guidebook's cover letter, Deputy Secretary of Defense Gordon England writes, "DoD's policy on the capture of benefits from improvement efforts is that cost savings and expense reductions that result from improvements in overall operating effectiveness can be retained by the organizations that generate them."

Defining CPI

Continuous process improvement provides methods, tools, and philosophies that can be used to improve the way we work. It is applied on a never-ending basis, resulting in greater efficiency end effectiveness. CPI, as applied in DoD, is based on three complementary but distinct viewpoints: Lean, Six Sigma, and the Theory of Constraints:

- **Lean**: Key elements of Lean as applied in CPI are customer-defined value, reduction in non-value-added activities, and the pursuit of perfection.
- **Six Sigma**: Uses a series of tools to identify the sources of variability in our processes, allowing us to focus our improvement efforts.
- **Theory of Constraints**: TOC recognizes that there are constraints that organizations must overcome in order to achieve their goals. It employs a five-step methodology to continuously improve processes.

The CPI Deployment Cycle: Planning

The *CPI Transformation Guidebook* introduces a CPI deployment cycle (illustrated on the next page) outlining how CPI principles will be disseminated throughout DoD. As a necessary prerequisite, the Guidebook first defines our customer as the warfighter and his or her readiness as the primary goal of the initiative. Like many models, the CPI deployment model begins with the development of CPI mission and vision statements and is complemented by a strategic plan on how to make the vision a reality. Alignment with DoD strategic planning guidance is desired.

Borrowing a key tool from the Lean philosophy, the second step of the deployment cycle calls for the development of a value stream map and conducting the associated analysis. A value stream map captures all the actions

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currently required to deliver a product or service to the customer; and only through using a value stream map to first document how we currently do our jobs, can we identify those processes or activities that add no value to our customer.

> DoD's Continuous Process Improvement Program seeks to develop a Department-wide culture of continuous improvement.
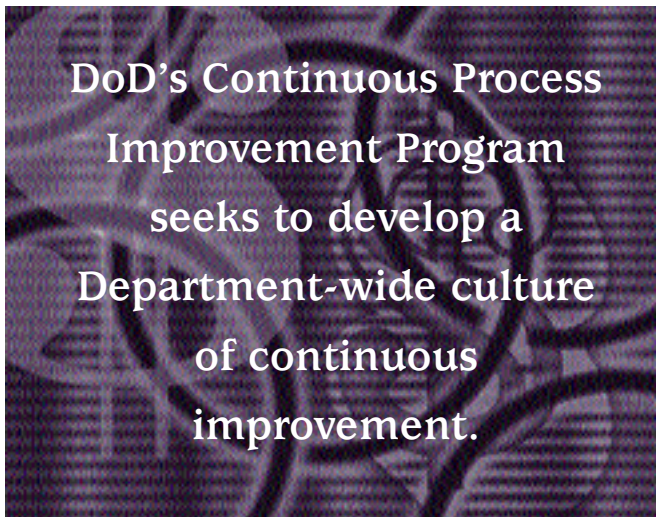
The success of any initiative is dependent upon strong leadership. The third step of CPI deployment— "develop structure/behavior"—creates an organizational structure and training certification program to successfully institutionalize CPI within an organization. Led by a CPI champion and guided by a CPI steering committee, a CPI support team provides CPI training and facilitates the management of CPI initiatives. At the working group level, ownership of specific processes is assigned and the CPI tools are applied to achieve process improvement goals. The hierarchy is completed with the establishment of CPI peer groups, which provide for mutual support and the sharing of CPI information across the organization, and seek ways to smartly optimize results across many processes.

The fourth step in CPI deployment is the alignment and deployment of goals. Goals established for an organization must support and be consistent with the goals of its higher level commands. There should be a clear link between the goals of a major command and those of its reporting sub-units. These goals need to be quantified through thoughtfully developed metrics. These metrics will guide behavior on a daily basis as an organization pursues its mission. The *CPI Transformation Guidebook* calls for a direct, identifiable, causal relationship between metrics and one or more organizational goals.

The CPI Deployment Cycle: Implementation

Once the foundation of CPI deployment has been established with the four planning activities, the emphasis on deployment now transitions to an implementation phase guided by an operational plan. The Operational Plan is created and refined by the CPI organizational structure ensuring it reflects the intent of the organization's mission/vision statements and its strategic plan. It accounts for the assignment of resources, includes a prioritized schedule of implementation, and identifies specific improvement activities. Finally, the plan recognizes how the quality of a product or service is going to be maintained while focus and energy shifts to process improvement.

In executing the approved operational plan, teams are first identified, manned, and trained on CPI techniques. Using Lean approaches, targeted processes are baselined using value stream maps. Then, by applying six sigma tools, the team's focus shifts to standardizing policy, procedures, and processes. Progress against the operational plan is monitored using the previously agreed-upon metrics and reported to stakeholders. Feedback via coaching from peers, support teams, steering committees, and CPI champions is used to improve results.

The CPI deployment planning and implementation processes are complementary. Just as CPI implementation is guided by deployment planning, results from implementation are fed back into the planning cycle. This

CPI Deployment Cycle

PLANNING

1. Develop Mission, Vision & Strategic Plan
• Who am I?
• Where am I going?
• What do I need to get done?

2. Conduct a Value Stream Analysis
• How will I get there?

3. Develop Structure/Behavior
• What will I need?

Goal Alignment Deployment
How will I get people to do it?

RE-ENTRY

IMPLEMENTATION

B. Implement Operational Plan (Meet my commitment)

A. Create & Refine Operational Plan (What's my plan?)

C. Monitor (How am I doing?)

D. Focus on continuous process improvement (How can I do it again? How can I do it better? How can I kill it?)

feedback serves as the basis for subsequent planning activities as the never-ending continuous improvement process continues.

CPI Training and Certification

Critical to the success of CPI transformation throughout DoD is the training and subsequent certification of the workforce. The goal is to have employees who have not only received training in CPI, but who can demonstrate through certification that they can select and properly apply CPI tools, techniques, and methodologies.

The DoD *CPI Transformation Guidebook* calls for training beyond the technical aspects of CPI and emphasizes three areas: core competencies, goal alignment, and common terminology and conceptual approach. Significantly, the 20 training competencies (see sidebar) go far beyond the nuts and bolts of histograms and scatter plots and are divided into three broad areas. Conceptual Skills introduce the CPI philosophy and cover such subcategories as project and process management, systems engineering, and decision analysis. Recognizing the team approach to CPI implementation, human interaction skills make up the second major competency area. Finally, the tools, techniques, and methodologies usually associated with CPI reside in the final competency area—technical skills.

In addition to competency familiarization, the training program must also ensure a common understanding of CPI terminology and philosophy. Further, consistent with the CPI deployment model, training must also cover goal alignment. Practitioners of CPI within DoD must be capable of selecting, monitoring, and tracking lower-level process- and organizational-level metrics and ensuring their alignment and consistency with higher-level or enterprise-level goals. The CPI training program ensures competence across all aspects of CPI and ensures alignment of goals while establishing common terminology and approach.

Training, however, is not enough to achieve CPI certification within DoD. In addition to training, certification requires a training project, satisfactory completion of a proficiency test, and mentoring by other CPI practitioners. Current separate certification approaches for Lean, Six Sigma, and Theory of Constraints can be referenced against the total requirements required for DoD CPI certification. Similar to Defense Acquisition Workforce Improvement Act (DAWIA) certification, DoD's CPI approach calls for three levels of certification: I, II, and III. Each level of certification has requirements for education, work experience, technical capability, computer proficiency, team skills, and training/CPI project experience. As an example, CPI level II requires 200 hours of targeted training, participation in three to five improvement events, and the leading of three improvement projects. Finally, depending upon certification level, a required level of com-

TRAINING COMPETENCIES

CONCEPTUAL SKILLS
- CPI Philosophy
- Project Management
- Process Management
- Systems Thinking
- Systems Engineering
- Problem Solving
- Decision Analysis

HUMAN INTERACTION SKILLS
- Conflict Resolution
- Leadership
- Change Management
- Team Dynamics
- Communications

TECHNICAL SKILLS
- Value Analysis
- Waste Analysis
- Risk Analysis
- Flow Analysis
- Constraints Analysis
- Metrics
- Probability/Stats
- TPM/RCM

prehension, ranging from awareness to authority, is also needed for each of the 20 CPI core competencies. Training and certification are cornerstones of CPI transformation within DoD.

As acquisition professionals, processes drive what we do to accomplish our jobs and how well we do them. Within industry and in selected areas of DoD, significant gains have been realized in driving down costs, reducing cycle time, and improving quality through the application of Lean, Six Sigma, and Theory of Constraints philosophies. Through selectively using these approaches and others, DoD's Continuous Process Improvement Program seeks to develop a Department-wide culture of continuous improvement. It is DoD policy that organizations may now retain cost savings and expense reductions associated with improvement efforts. The *CPI Transformation Guidebook* provides a model for deploying CPI throughout the department and establishes training and certification requirements. It is available through the Acquisition Community Connection at < https://acc.dau.mil/Community Browser.aspx?id = 32364 >.

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Opportunity Management

Deciding to Make it Part of Your Programs Acquisition Strategy

Will Broadus ▪ *Iris Metcalf* ▪ *Phil Littrell* ▪ *Duane Mallicoat*

In our previous *Defense AT&L* article ("Should Opportunity Management be Added to my Programs Acquisition Strategy?" May-June 2007), we discussed the concept of opportunity management (OM) and the potential benefits such a process could yield for your program. In this article we take the next step in our journey by laying-out a notional framework for an opportunity management program (OMP). Our notional framework consists of seven major steps:

- Empower your OM IPT
- Identify opportunity candidates
- Assess the opportunity candidate for advantages and disadvantages
- Establish an implementation plan
- Validate all assessments and plans
- Maintain control/oversight
- Communicate and document.

When properly applied, this framework will provide the foundation for the development of an effective OMP in your own program. Once developed, your OMP will prove to be a useful management tool that you can readily align with your existing risk management plan.

Empower your OM IPT

This is the first step in the process because of its critical importance to the overall success of your team. Team empowerment can potentially lead to the following positive results for your program: creative thinking, an environment accepting of change, and a proactive team that acts rather than reacts. Through effective empowerment, you will foster a "Be All You Can Be" work environment (to use the old U.S. Army recruiting slogan). Once your team begins to work with OM as a concept, you will soon discover the similarities of its management tenets to the other management programs you already have in place. Like any other management program, to be effective, OM requires a set of defined and disciplined boundaries. Among these boundaries are a definition of the effort and how the effort will be conducted; who is responsible for
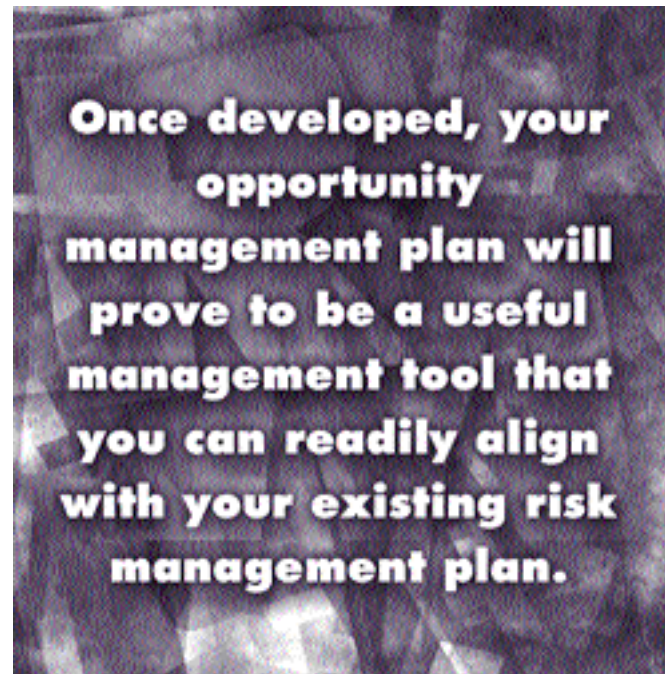
program processes; what are the boundaries of official roles; what are the rules of engagement for your team and relevant stakeholders; how will your team be trained on OM processes; and finally, how will your team's leadership support the program? As a starting point, consider how your IPTs are chartered with their current assignments. In this regard, pay particular attention to how your risk management processes are conducted by each IPT component.

You may be asking, "Why focus on risk management and how the various IPT components support it?" In our previous article, we made a point to link the process of managing risk with managing opportunities. During the process of assessing a program's "risks," we are frequently able to identify potential opportunities that can actually reduce our risk, or at least provide the team a true return on investment. Like risk, we can assign the responsibil-

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ity for handling a potential opportunity to that IPT component having the greatest chance of achieving the potential benefits associated with that programmatic opportunity. If an opportunity is directly associated with a specific subsystem, is focused on cost performance, or is associated with overall program performance, the selection of the IPT lead for maximizing the potential opportunity ought to be relatively straightforward. It is the PM's responsibility to ensure that the necessary elements are in place for all assignments to be carried out successfully.

Identify Opportunity Candidates

This is the primary responsibility of the various program teams, whether they are composed of contractors, government personnel, or both. This makes perfect sense when you consider that those individuals or teams are most knowledgeable about achieving their program goals. The kinds of questions that stimulate provocative thinking about OM are: What are we doing? Why are we doing it that way? Is there a better way? Could the process be made more efficient or modified to increase our probability of success?

Although the initial investigation into pursuing an opportunity starts with the team, fleshing out an opportunity evolves as it progresses up the chain, ultimately reaching the desk of the program manager for consideration and adoption. The key to the identification of opportunities is an appreciation for the "trade space" that is potentially available within your program. It is absolutely essential that the program's measurable goals and objectives be promulgated to all levels within the IPTs at program initiation. All acquisition programs have baselines for cost, schedule, and technical performance that are documented, assessed, and reported on as the program progresses through its phases.

The following can serve as fundamental sources for identifying opportunities in your program: Key Performance Parameters outlined in your program's capability development document; technical performance measures outlined in your developers' systems engineering management plan; the traceability of the technical maturation of the program identified in your systems engineering plan; the contractual incentive structure exhibited in contract vehicle; or the cost and schedule objectives of your acquisition program baseline.

The process of identification can be crafted along the lines of your existing risk management program. With risk, you are looking for potential impacts to cost, schedule, and technical performance that you wish to reduce through a proactive set of actions. The identification of opportunities follows the same proactive approach as managing risk, except you are seeking to enhance the potential benefits associated with cost, schedule, and technical performance.

Assess the Opportunity Candidate for Advantages and Disadvantages

This is the heart and soul of the process. After identifying an opportunity, an initial assessment of advantages and disadvantages must be conducted. At a minimum, your assessment will determine the likelihood that the opportunity will occur, and the benefits to be associated with the opportunity (cost savings, man-hour savings, improved efficiency, improved end-product performance, enhanced safety factors, and the like). The responsibility for this step of the process once again belongs to the IPT, but it can flow up the chain of responsibility to the PM and down the chain to the end user. During this step of the process, all known and projected aspects of an opportunity's benefit are considered, with no single facet of the process outweighing any other. Based upon the probability that the opportunity can actually be realized, your IPT assigns a priority for consideration.

All opportunities are assessed in a two-step process: a qualitative analysis and if necessary, a follow-up quantitative analysis step. A qualitative analysis assesses the relative likelihood that the opportunity can be realized and the relative value of the benefit if the opportunity is in fact achieved. A quantitative assessment can be performed on any opportunity if greater granularity is required. This is particularly true if an objective estimate is necessary that requires more detail regarding the cost to pursue the opportunity and its potential benefits.

The qualitative analysis step provides an overall picture of the opportunity's perceived relative ranking when compared to other potential opportunities. This comparison is usually conducted with a normative standard such as an "opportunity cube" (explained and illustrated in our previous article). Your program will need to operationally define your methodology as you would with a risk cube structure so that a consistent criterion can be applied. The advantage of this is that when IPT members rate an opportunity as a "4" on the likelihood scale, the meaning is consistent for everyone in terms of its probability of occurring. Similarly, the benefit scale (akin to the consequences scale of a risk cube) would have a standard set for each rating level associated with cost, schedule, and/or technical performance.

The necessity for conducting a quantitative assessment frequently comes down to providing objective support for the selection of a response strategy for the opportunity in question. Similar to managing program risk, the cost of handling an opportunity strategy has to be consistent with the benefit to be gained. Even if your qualitative assessment validates it as an excellent candidate to pursue, the estimated resource investment in the opportunity to achieve the benefit may far exceed its ultimate value. A general rule of thumb is that the greater the resources needed to achieve an opportunity benefit,

the greater the likelihood that a thorough quantitative assessment will be required.

Establish an Implementation Plan

Planning is essential to a successful project and an inherent responsibility of any IPT. This axiom applies to the pursuit of an opportunity as well. Planning cannot be limited only to a primary plan but must also include a secondary or fall-back plan. It is during this stage that the following determinations/recommendations are made:

- How will you capture the opportunity in question?
- Who is most capable of implementing the opportunity once it is captured?
- What is the impact of disregarding a positive risk the program might desire to leverage?
- What strategy is best suited for taking advantage of the opportunity: exploit it, share it, enhance it, or accept it?

In our first article, we compared and contrasted an opportunity-response strategy to a risk-management strategy. You may recall that we acknowledged as a best practice four strategies for handling opportunities from the *PMBOK* (*Project Management Book of Knowledge*): exploit it; share it; enhance it; or accept it.

An exploiting strategy would be the approach taken if a program wishes to pursue an opportunity and ensure its realization. A sharing strategy would be the approach taken if a program needs to shift the ownership of the opportunity to another element of the organization or an external resource because they are better suited to achieving the benefits. An enhancing strategy would be the approach taken if a program desires to maximize its key drivers, thereby increasing the probability that the opportunity will be realized and/or increasing the positive impact (i.e., the benefit) of the opportunity that will be achieved. An accepting strategy would dictate no significant efforts on the program's part to pursue the achievement of the opportunity since the positive impact is very limited.

Validate all Assessments and Plans

This step is the responsibility of the oversight committee, which can be chaired by the PM, the assistant PM, or a designated representative. After an area has been identified and assessed and a handling strategy has been established, all aspects of the proposed approach are validated by the PM. All major programs have existing risk management boards whose role it is to oversee the conduct of risk management for the program team. A theme that we have emphasized in this article is that you consider leveraging your existing risk management program to support your opportunity management program. We urge you to develop your opportunity management plans and strategies and validate them against your risk management construct already in place. There are opportu-

nities (no pun intended) that your program team can take advantage of if you will consider aligning risk and opportunity management in a mutually collaborative way. Maybe the time is right, especially in a time of severely restrained government resources, for all of us to strive for reducing risk in conjunction with pursuing opportunities.

Maintain Control/Oversight

This step tracks the execution of implementation plans, providing oversight as well in the event changes or modifications are necessary because of changing environments. This step uses all available monitoring matrices, shifting to back-up plans when required. Opportunity management requires the same level of attention as other major elements of your program. As the program changes and matures, additional opportunities are identified, existing opportunities may change, and some opportunities may even disappear. How your team decides to incorporate the oversight task into your OM program should closely parallel your oversight process for managing risk. In fact, sufficient commonality exists between risk and opportunity management that your program ought to seriously consider adopting the two points of view as a mutually collaborative program.

Communicate and Document

A critical element at each stage of the process is free and open communication between all concerned: decision makers, providers, and receivers; up and down the information chain and across all management functions. Effective communication and well-documented progress are the principal keys to success. Documenting your achievement events, the reasons for missed or delayed deadlines, your successes, and timelines met or exceeded can ultimately lead to increased opportunities with corresponding potential benefits for your program.

Similar to any other program management element, Opportunity Management is aligned with many other aspects of your program such that to be successful your team must understand the needs of its stakeholders and what information they require. In the case of OM, team members need to clearly understand the "trade-space" opportunities that exist within their program. In recent years, we have all made great strides toward having more open and joint communications between all members of program IPTs, and this trend must continue with our efforts to conduct a viable opportunity management program. As with managing baselines or risk or any other major aspect of our programs, it is important that team members have access to approved plans and any documented lessons learned on the adequacy of your opportunity planning process.

Making a Commitment

Every program office is faced with the constant decision of where best to apply its limited resources. Given the dis-

cussions on opportunity management, we believe there is a strong case for making it a formal practice on your program. In our article in the last issue, you were introduced to the "what" of opportunity management, and we emphasized the commonly held understandings of its value as a practice. The purpose of this article was to introduce you to a set of elements on "how" you can implement opportunity management. Using the seven major framework elements—empower your OM IPT; identify opportunity candidates; assess the opportunity candidate for advantages and disadvantages; establish an implementation plan; validate all assessments and plans; maintain control/oversight; and communicate and document— would provide a structure to develop and implement a repeatable program approach to managing opportunity effectively.

Even with the previously highlighted value that practicing these principles will have on a program, you may still be faced with the question of what your program's return on investment will be if you make the commitment of resources necessary to formally establish opportunity management within the program.

A key to supporting this decision is having available a sharable body of research focused on answers to the following questions:
- What successes or failures have other programs had in applying these principles both in DoD and in the commercial sector?
- What are the barriers to implementation?
- What lessons-learned are available that my program can leverage?

The Defense Acquisition University has the charter to support the acquisition workforce and build communities of practice, and the area of opportunity management could be one that yields high returns for any program willing to pursue it. As implementation of OM as a practice becomes broader, we have the obligation, as practitioners, to assess its value as a tool to support our programs' maximizing their contribution to the warfighter and our other stakeholders.

Ultimately, the question that remains to be answered (if you choose to do so) is not if, but to what extent using OM will add value to your programs' outcomes. We look forward to hearing about your lessons learned in the future.

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Black, White, and Shades of Gray

Ethics in Project Management

Wayne Turk
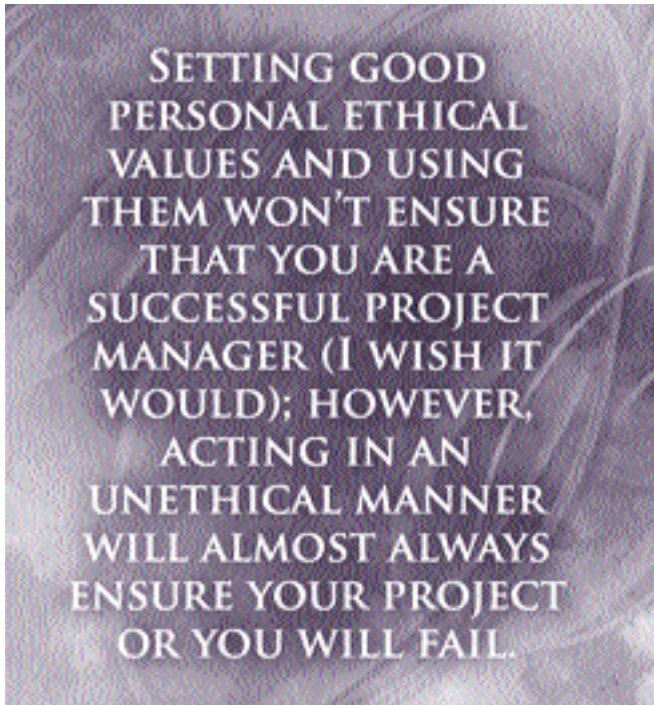
generally describes the highest values to which the company aspires to operate. It contains the 'thou shalt's.' A code of ethics specifies the ethical rules of operation. It's the 'thou shalt not's.'"

Then there are ethical virtues or values. Those are the guiding factors. Statements around how these values are applied are sometimes called moral or ethical principles. Examples of ethical values might include these from the The Josephson Institute of Ethics. Related values are grouped.
- Trustworthiness: honesty, integrity, promise-keeping, loyalty
- Respect: autonomy, privacy, dignity, courtesy, tolerance, acceptance
- Responsibility: accountability, pursuit of excellence
- Caring: compassion, consideration, giving, sharing, kindness, loving
- Justice and fairness: procedural fairness, impartiality, consistency, equity, quality, due process
- Civic virtue and citizenship: law abiding, community service, protection of environment

Most books, articles, and surveys on ethics or ethical behavior make it simple. They just say, "Do the right thing"; and when they give examples, those examples are usually clear cut. You don't lie, cheat, or steal (sounds like the honor code at the academies). It's good guidance, but the real world isn't always that simple. Project management is just a microcosm of the real world. While it's easy to say, "Always be ethical," it's not always easy to follow the dictum.

Some Definitions
It hasn't been that long ago (1976 to be exact) that the *Wall Street Journal* called business ethics an oxymoron. And because of the many scandals in business (think Enron, think Darlene Druyun—just two of many), more and more companies and organizations are coming up with credos or codes of ethics. Douglas Wallace, a consultant in ethics, differentiates them as follows: "A credo

And Some History
Philosophers have been discussing ethics for at least 2,500 years, since the time of Socrates and Plato. Back then, Marcus Aurelius summed it up when he said, "If it is not right, do not do it; if it is not true, do not say it." Some ethicists have considered ethical beliefs to be "state of the art" legal matters. In other words, what is an ethical guideline today, is often a law, regulation, or rule tomorrow. Plato countered that with "Good people do not need laws to tell them to act responsibly, while bad people will find a way around the laws."

The Harvard Business School was the first to offer a class on "social factors in business enterprise" in 1915. Now about 90 percent of business schools provide some kind of teaching in business ethics.

A code of ethics is a written set of standards of behavior about how individuals are to act in order to be part of an

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organization. Among those directly related to project management are those from the Project Management Institute (PMI) and the American Society for the Advancement of Project Management (ASAPM). Theirs are typical, although they don't exactly go by Wallace's definition.

The 2006 version of the PMI *Code of Ethics* says, "In the pursuit of the project management profession, it is vital that PMI members conduct their work in an ethical manner in order to earn and maintain the confidence of team members, colleagues, employees, employers, customers/clients, the public, and the global community."

As a professional in the field of project management, PMI members make the following pledge:
- I will maintain high standards of integrity and professional conduct.
- I will accept responsibility for my actions.
- I will continually seek to enhance my professional capabilities.
- I will practice with fairness and honesty.
- I will encourage others in the profession to act in an ethical and professional manner.

ASAPM's 10-point code is similar, though spelled out in more detail. You'll find it at < www.asapm.org/a_ethics. asp >.

What Causes Ethical Slips?

What causes people to not follow the prescribed ethical guidelines? A 2005 global study of over 1,100 managers and executives identified the top three factors most likely to cause business people to compromise their ethical standards. All three impact project managers, as well as almost everyone else. The factors, in order, are pressure to meet unrealistic objectives/deadlines; desire to further one's career; and desire to protect one's livelihood.

How often are project managers faced with the first one? "Almost continually," is the answer. Project managers have to deal with unreasonable expectations, unrealistic schedules, unworkable budgets, too few resources, and crises that seem to pop up on a daily basis.

As for the other two—advancing your career and protecting your job—most of us consider them pretty important. The greater the personal upside or downside associated with a decision or action, the more likely that people will be tempted to compromise their ethics.

Let's consider a few typical arguments (slightly edited) that Jack Eckmire points out in T*he Ethical Dilemma*:
- Urgent timing: "I don't care what the regulations say, I need it now."
- Entrenched opposition that can be avoided: "Nobody will find out till it is too late."

- Superiors or colleagues: "If you don't do this, we'll all suffer the consequences."
- Critical impact: "National security is at stake here."
- Competitor's tactics: "Our competition is doing it. We have no choice."

I would add a few others, and you can probably add more:
- "We can always fix it later."
- "What they don't know won't hurt them."
- "If we don't cut some corners, we'll never make the timeline."
- "Don't worry, they'll turn a blind eye to get this into the field."
- "But the regulation (or law or policy or contract) doesn't specifically say we can't."
- "We have to stretch the truth or we'll never get the funding we need."

The Cheatin' Heart

Cheating is a common ethical slip. According to David Callahanin his book *The Cheating Culture: Why More Americans Are Doing Wrong to Get Ahead*, there are a whole host of reasons why individuals cheat; however, there seem to be some recurring themes that apply to project management. David Foster and Jaime Mulkey, two ethics consultants, sum them up for their clients in these four types:

Whatever it takes, I will win: Rewards for performance have grown, especially for those at the top, whether in sports, school, or business. The result is that people will do whatever it takes to be a winner.

A tough economy means greater financial anxiety: There is increased concern regarding the security of one's job. People who should feel secure in their jobs don't. As a result, some people cheat on certification tests, take liberties with the truth on their resumes, or embellish their part on job performance or the project.

Let sleeping dogs lie: There is less chance of getting caught. Watchdog agencies such as the Internal Revenue Service, the Securities and Exchange Commission, the Government Accountability Office, and state regulatory boards have become less active in the enforcement of monitoring and sanctions.

Go on, indulge yourself: There is more cheating in today's society because "... our culture indulges it. We live in a more dog-eat-dog society, where greed and cutthroat competition are often encouraged by role models and television shows (e.g., *The Apprentice*)."

Ethical Dilemmas: No Easy Answers

You cannot establish in advance preferred behaviors in response to every potential ethical dilemma. It's not that simple. An ethical dilemma exists when one is faced

with having to make a choice among alternatives where there are significant value conflicts among differing interests; real alternatives are equally justifiable; and there are significant consequences for multiple people in the situation.

Let's look at some examples, mostly concerning a hypothetical project. The original versions of most of them are in the "Complete Guide to Ethics Management: An Ethics Toolkit for Managers" written by Carter McNamara. You can find it online at < www.managementhelp.org/topics.htm >. (Ethically speaking, I need to tell readers that.) Some have been significantly modified, and I replaced others with more appropriate ones.

Testing on the project is about to start. I notice that the test plan doesn't cover one area. It's an area that is not an official requirement, but it is important. We have been having some problems with this area. Do I bring up the omission?

A customer asks for a product (or service) from a current contractor. After learning the proposed price, the customer says that he/she can't afford it. The contractor knows that the product or service could benefit the project and is available more cheaply from another contractor. Should the contractor tell the customer about the competitor or let him/her go without?

A very important project team member has refused to use our e-mail system (or some other product needed in the project). He says it will go against the teachings of his religion to use a product built by a company that provides domestic partner benefits. He has cut himself off from the team, creating a major obstacle to project success. Do I let his religious principles impact the project?

The project is going to be downsized because of funding problems, but that's not yet general knowledge. I have learned that one of my team is among several others soon to be without a job. My boss says that I'm not to tell my team member yet because he might tell the whole organization, and that would cause problems. Meanwhile, I heard from my employee that he plans to get braces for his daughter and have renovations done on his house. What should I do?

There is a new position opening up on the project. My boss has told me that he isn't going to give me the position because he's earmarked it for a friend of mine. However, my friend has told me in confidence that he plans to quit in two months and start a new job that has been guaranteed to him. Is my promise not to say anything more important than my own promotion?

The justification for next year's funding for the project is in draft form, prepared by my boss. Some of the bene-

fits listed will, or at least may, be available in the long run, but certainly not in the version earmarked for funding. Should I say something?

Choices, Choices

All of the preceding are ethical dilemmas. There is no 100 percent right answer for any of them. That is why ethics are not black and white, but shades of gray. Sometimes the choice is between two wrongs or two rights. Knowing the appropriate course of action when the options are either both right or both wrong is tough. That is why you must set your own ethics as a person and as a project manager. The codes of ethics mentioned earlier are great guides. Set yours as high.

As a project manager, you are responsible for all activities that occur or fail to occur on the project. Being ethical in your decisions and actions is important. Setting good personal ethical values and using them won't ensure that you are a successful project manager (I wish it would); however, acting in an unethical manner will almost always ensure your project or you will fail.

The basic underlying principle of ethical behavior is honesty, which means no lying, stealing, or cheating. If you live by that basic principle, you will be okay. Yes, there will be times when there are shades of gray, by which I don't mean walking the line between ethical and unethical, but situations in which either answer is right or wrong, but a decision has to be made. Make your decisions based on your personal code of ethics.

On the positive side, ethical behavior leads to more effective communication and trust among project team members, and between the project team and external parties, including upper management, customers, and the general public. Don't take shortcuts.

On the negative side, being ethical won't always be easy. There will be times when it will be personally or professionally costly. There will be times when decisions are in those gray areas. As in real life, so it is in project management.

We could all do worse than to live by Mark Twain's advice: "Always do right—this will gratify some and astonish the rest." Our goal should be that the people around us aren't astonished because they're used to our doing the right thing.

The Importance of Data and Data Rights

L.S. Kove

In July 2006, the United States Government Accountability Office (GAO) released a report to Congress: "DoD Should Strengthen Policies for Assessing Technical Data Needs to Support Weapon Systems" (GAO-06-839). The report stated: "A critical element in the life cycle of a weapon system is the availability of the item's technical data—recorded information used to define a design and to produce, support, maintain, or operate the item. Because a weapon system may remain in the defense inventory for decades following initial acquisition, technical data decisions made during acquisition can have far-reaching implications over its life cycle."

GAO recommended that the Department of Defense "consider requiring program offices to develop acquisition strategies that provide for future delivery of technical data should the need arise to select an alternative source for logistics support or to offer the work out for competition."

Today more than ever, the Department relies on its prime contractors for logistics support. Many years ago, such dependence was often limited to training systems and those weapons systems that stayed away from wartime scenarios. These days, however, there have been significant changes in acquisition strategy, and even weapon systems going into battle could have either all or partial contractor logistics support under the newer term performance-based logistics.

An Object Lesson

In the early 1980s (in pre-PBL days), I worked on what was then termed Contractor Logistics Support. Before we released the Request for Proposal for one weapons system, we were required to do an analysis to determine the lessons learned from past CLS procurements so as to incorporate that intelligence into the RFP to strengthen it.

The lesson that has stayed with me throughout my career pertained to procurement of the wrong technical data and lack of data rights. With the intent of staying with the prime contractor for life, the government bought aircraft and maintenance, as well as spare and repair parts. However (as so often), the prime's price went up over time and the government wanted to compete and get a lower price for the maintenance and supply support. With the limited data rights they maintained, they advertised and awarded a follow-on contract to a different company.

Based upon the technical data the maintenance company received from the government, it bought spare and repair parts, only to discover that they were incorrect. The purchase was based upon the government's furnished information, apparently for an earlier version of the end item. The government was forced to immediately hire back the prime contractor and absorb all the costs associated with ending the other company's contract, including the disposal of worthless spare and repair parts that could not be used in support of the end item. The lesson the government learned from that fiasco was to buy the technical data and associated data rights so that competition could be encouraged. That had a direct effect on how we designed our future acquisitions.

Data Rights: Cost and Benefits

More than two decades later, the GAO has found that DoD is still buying insufficient technical data and associated rights to sustain weapon systems, thereby precluding the customer and price benefits that could be achieved by competition. Companies that have invested in creating designs want to hold onto their data rights and the engineering drawings that provide details to manufacture the
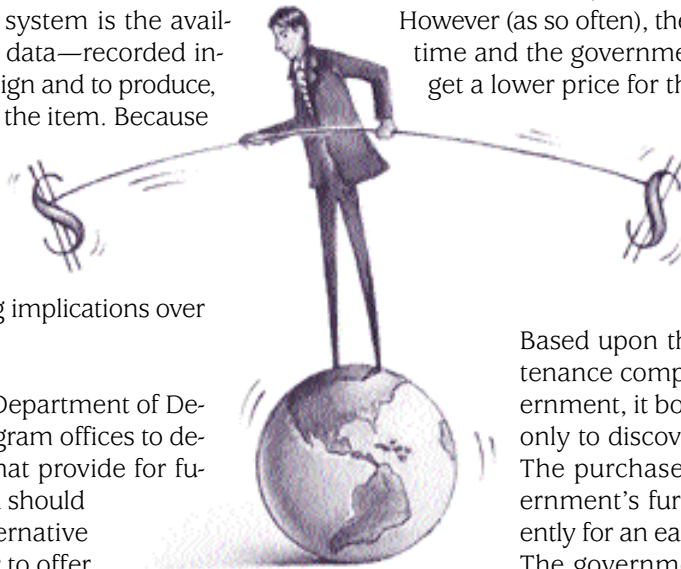
> "Program managers should consider the cost and benefits of acquiring data rights—or consequences of not obtaining them."

Kove is a special projects officer at a Naval Air field activity. Her range and depth of experience of almost 30 years includes military, commercial, and various positions in civil service.

From Our Readers

Risky Defense Business

I enjoyed the various risk articles in the May-June 2007 issue of *Defense AT&L* but was left with the feeling that all missed the most obvious problem with risk mitigation in DoD acqusition.

We can't make risks go away. Things happen. When a coworker gets ill, we inherently knew that was a risk to the workforce. When a manufacturing machine or computer breaks, we knew there was a risk that might happen. When a process or project doesn't flow as we had optimistically planned, we knew there was a probability of that.

We mitigate our daily risks by cross-training our workforce, keeping back-up machinery (or spare parts), and having contingency plans for when things don't go as planned.

Risk management is the art of deciding what those contingency plans will be. Industry passes on the costs of back-up workforce, parts, or plans to the consumer. But in DoD, we keep our budgets down by being success-oriented and minimizing back-up items and alternative plans. It's a rare PM who can keep a budget padded with enough to fund risk-mitigation contingency alternatives to run in parallel with the baseline program—just in case something should happen. There are too many possible "somethings" for the PM to fund all alternatives, so we typically don't fund any. Hence— realistically speaking— there is little substantive risk mitigation in the DoD acquisition community.

Dick Rippere, Lt. Col. USAF (ret)
Level 3 PM

I'm a little confused by Douglas J. Bragdon's article "First Things First:The Importance of Risk Identification" in the last issue of the magazine. On the one hand, Mr. Bragdon seems to say the DoD isn't doing a good job of identifying risks:

"In order for the DoD risk management process to increase in value to programs, it needs to move out of its adolescence and become fully matured. The key to this maturity is improvement in the most important, yet most elusive part, of the process: risk identification."

But in the opening scenario, he writes: "'We actually proposed this risk three times,' says the RM. 'When we started out with our Delphi solicitation two years ago, over half of our industry experts mentioned it.'"

Mr. Bragdon goes on to write that "risk identification results are received with polite thanks—then left in a file." That doesn't sound like a breakdown in risk identification—the risks actually are being identified. Instead, this sounds like a failure to accurately assess and address the risk. More specifically, it sounds like breakdown in judgment, courage, and leadership (at the risk of quoting my own recent article on risk).

I completely agree with Mr. Bragdon that risk managmeent should never be just another engineering checklist. I appreciated his refreshingly honest appraisal of the state of risk management within the DoD. We do an awful lot of it, and we do a lot of it awful. But Mr. Bragdon and I part company on the solution to this problem. I do not think "a strong risk identification process" (or any other process) is going to help much, particularly in the absence of the aforementioned judgment and courage. PM's need courage to look risks in the face, and judgment to determine what to do about them. An over-reliance on process is doomed to failure from the start. And as Mr. Bragdon's article shows, that's how we got into this situation in the first place.

Maj. Dan Ward, USAF
Special Assistant to the Chief Scientist
Air Force Research Laboratory, Rome, N.Y.

The author responds: I took the liberty of defining Risk Identification as "...the activity that determines which risks are relevant to the program.." In doing so I extended this activity beyond the normal meaning of "identification" to include an evaluation of relevance. I think this is important in order to distinguish between risks cavalierly floated in a brainstorming session (which could be considered identification) and those that are fleshed out and considered thoroughly. However, as Maj. Ward points out, I failed to stress this distinction adequately and caused needless confusion. The point to be made is this: Our programs aren't even addressing the right risks.

Not all good PMs can intuitively know the right path, and this is where the process adds value. But I totally agree with Maj. Ward that our PMs need courage to address difficult risks—another key ingredient of this inexact science.

Douglas J. Bragdon

Attitude Adjustment with "Managing Up"

Only very recently have I become aware of the concept of "managing up." It is a bit late in my professional life; however, I believe it is never too late to learn and apply newly gained knowledge.

Surfing the Net, I happened to find Wayne Turk's article on the subject [*Defense AT&L,* March-April, 2007]. I want to say thank you. This is the best article I have read in a long time, and without having been able to actually apply the insights, I feel that I will be successful. Reading and pondering Mr. Turk's thoughts has been—and continues to be—a real eye-opener, for which I am very, very grateful. I can hardly wait to get back to work after my annual leave next Monday. I will not be an entirely different person, but a person with a different attitude and valuable insight. Thank you very much again.

Ursula Christen
Berne, Switzerland

items. So initially, when the government asks for rights and technical data, the price is often quite high. However, if the government has contributed to the development of the design and can prove that by the examination of accounting information such as time cards, then it can negotiate for some level of data rights and associated engineering details. If any federal entity has paid for any part of the design work, then this benefit can be exercised by any other group within the federal government.

These types of challenges are often conducted by contracting officers and/or in cooperation with government patent attorneys. The burden of challenge is on the government. The government can ask for the contractor or subcontractor to furnish a written explanation for any restriction claimed on the right of the federal government or others to use the technical data.

The draft Office of Secretary of Defense 5010 manual, *Procedures for Acquisition and Management of Contractor Prepared Data* (May 18, 2006) defines data rights and types. In summary, the term "data rights" refers to intellectual property regarding the use of the data developed, accessed, and/or delivered under a government contract. Data rights involve proprietary, restrictive, government purpose, unlimited, and limited, and may include patents, copyrights, and other data rights provisions. Data rights are necessary in the determination of release, duplicating, and disclosure of technical data and are generally determined by whose money is used in the development of the data. If the data are developed with government funding, then the government has the right to access and receive the data with unlimited rights. If data are developed with private-sector funding, the government will generally be allowed government purpose rights. When the data are developed with mixed funding, both private and government, the data rights, in all probability, will need to be negotiated.

The reader is referred to the above-referenced draft policy for a full discussion of the following terms: limited rights technical data; government purpose rights technical data; unlimited rights technical data; specifically negotiated license rights; contractor rights technical data; prior government rights.

It is essential that program managers challenge the claim of sole source to insure that the claim is accurate. Many years ago, when I first worked for a prime contractor, the person in the desk in front of mine would stamp all the engineering drawings. One day I asked him what he was doing, and he said, "I stamp all these with 'proprietary' whether they need it or not." He explained that the government would always have to come back to our company for spares and repair parts. The aftermarket for these supplies could keep the company very profitable for a long time.

Competition results in significant cost savings for the government. I worked in the early 1980s for the Navy civilian who invented the DoD's "Buy Our Spares Smart" (BOSS) program. Instead of buying from the prime contractor, we went directly to the prime's vendor, and this normally resulted in a cost savings of 20 percent.

When the government has the ability to compete across possible vendors, the savings are significantly more than 20 percent. When you connect this savings potential of spare and repair parts to other areas of logistics that also rely on the technical data, the savings increase. As an example, updating technical manuals costs less when done by a government support contractor than when done by a prime contractor, but in order for the government to be able to award the updates to the subcontractor, it has to have the source data and the right to use the data.

Consider competing the actual building of a new version of an end item and/or a major system: If we have the engineering drawings of the prior designs and the rights to use these data for competition, then we can compete. Without either the rights and or the engineering drawings, we are always forced into a sole source situation.

Also of importance is the level of detail required in the engineering drawings, which depends on what function the program is competing. Is the need to carry out maintenance or to remanufacture? Remanufacture requires detailed drawings and all their associated lists; maintenance might not require as much detail, but does require enough to be able to procure the appropriate spare and repair parts as well as conduct the maintenance. MIL-DTL-31000C of July 9, 2004, gives the details needed to facilitate the preparation of the Technical Data Package and the TDP option selection worksheet specifications. It is the worksheet that must be used to specify the requirements and does in fact become part of the contractual requirement when used.

In August 2004, the GAO released to Congress the report, "Defense Management Opportunities to Enhance the Implementation of PBL" (GAO-04-715). One recommendation to the DoD was "to provide for sufficient technical data to support alternative support options using either the public or private sector."

Andrew C. Obermeyer, senior procurement analyst, DPAP Policy, says, "Program managers should consider the cost and benefits of acquiring data rights—or consequences of not obtaining them—in all acquisition decisions."

The author welcomes comments and questions and can be contacted at lisa.kove@navy.mil.

In the News

GATES, PACE CALL ON CONGRESS TO FUND IED RESEARCH

Jim Garamone

WASHINGTON—Defense leaders called on Congress to approve a further $2.4 billion to defeat the biggest killer of Americans in the Middle East: the improvised explosive device.

Defense Secretary Robert M. Gates and Chairman of the Joint Chiefs of Staff Marine Gen. Peter Pace told the Senate Appropriations Committee that the fiscal 2007 emergency supplemental request includes money to fund research into defeating IEDs. The money is in addition to $2 billion Congress already has appropriated this year to deal with the problem.

Gates stressed to the senators that this is an overriding concern in DoD. "The most unpleasant aspect of my job is every night going home and hand-writing notes to the families of those who have been killed in action," Gates said. "And there's a sheet behind every one of those letters that tells me how they died, and about 70 percent of them are the IEDs. So the whole Department of Defense is as highly motivated as an organization can be to try and figure out a way to get around these."

Gates said he has met with retired Army Gen. Montgomery Meigs, the director of the Joint IED Defeat Organization. "I asked General Meigs, 'Do you have enough money? Are you pursuing every avenue that makes any sense at all? And he assured me that with the enactment of the request that we have made both for the supplemental and then for (fiscal) '08, that he has the resources that he needs to do this," he said.

Pace said the effort against IEDs is more than simply looking for a technological answer. Experts in Iraq learn from every device that explodes, then they take the information and share it widely, "so the troops training right now to go overseas in the future have the information from the most recent tactics, techniques, and procedures of the enemy," Pace said.

Pace said the coalition and Iraqi forces look at the entire IED process, adding that coalition forces have secured 435,000 tons of ammunition from more than 15,000 locations in Iraq. "Just getting at the source of the explo-

U.S. Army Cpl. Joseph Casiano utilizes a detainee kit to check a holster for chemicals used to make improvised explosive devices during a combined cordon and search with the Iraqi National Police in Ghazaliya, Iraq, March 23, 2007. Casiano is with Black Hawk Company, 1st Battalion, 23rd Infantry Regiment, 3rd Stryker Brigade Combat Team, 2nd Infantry Division.

U.S. Army photograph by Sgt. Tierney Nowland, USA

sives is part of the problem," he said, "then the factories where they're built, and the individuals who build them, and then the individuals who deliver them, and then the individuals who put them in place. So we go after the entire chain of events."

Pace said coalition and Iraqi security forces find more than half of IEDs that are emplaced. "And then, thanks to the technologies involved, we have fewer and fewer casualties for the explosions that do take place," he said.

There is no easy solution, Gates said, and the United States must keep pushing at the problem. "The reality is we face an agile and a smart adversary, and as soon as we … find one way of trying to thwart their efforts, they find a new technology or a new way of going about their business," he said. "But I can assure you this is a very high priority for us."

Garamone is with American Forces Press Service.

AIR FORCE PRINT NEWS (MARCH 2, 2007)
AIR FORCE LOGISTICS CENTERS SUPPORT WARFIGHTERS 24/7

WRIGHT-PATTERSON AIR FORCE BASE, Ohio— When aircraft maintainers half-way around the world need help fast, round-the-clock support is now available at Air Force Materiel Command's three air logistics centers.

The customer support centers, or CSCs, at Tinker AFB, Okla., Robins AFB, Ga., and Hill AFB, Utah, are the product of AFMC's Logistics Transformation Program, an ongoing effort to provide warfighters what they need in minimum time. The centers are open 24 hours, seven days per week.

The CSC specialist's job goes beyond answering questions from maintainers in the field. It also involves cooperatively solving problems those maintainers confront as they work to keep aircraft flying operational missions anywhere in the world—in a rapid reaction way.

"Our goal is to ensure every caller's questions are answered satisfactorily on the first call," said Kitty Broussard, CSC flight chief at Tinker AFB. "In December, we processed more than 3,500 calls, and answered 99 percent of the questions on the first call. The work is very rewarding as we can see first-hand the support we provide to our warfighting customers," she said.

The Customer Relationship Management concept, under which the CSCs operate, includes not only responses to maintainers' questions but a partnership in solving problems. Each party has a stake in finding solutions. Each CSC incorporates a team at each air logistics center to provide a "track and capture" capability for all customer queries and requests.

In recent surveys, customers reported getting their queries answered or issues resolved on their first call 74 percent of the time. Another 87 percent reported they felt the CSC representative understood their question or need. Prior to stand up of the CSCs, customers reported they routinely made five phone calls to resolve a mission-capability question. About 63 percent indicated it was "difficult" to reach the right person to help them.

"A key part of providing 'war-winning capabilities, on time and on cost' is to provide logistics support for Air Force weapon systems around the globe," said Lt. Gen. Terry L. Gabreski, AFMC vice commander. "Establishment of customer service centers that do more than just answer questions is critical to us keeping the warfighter in the center of the radar. When maintainers in the field succeed, we succeed."

Customer involvement and customer satisfaction are the measures of success for the CSCs. To validate results, the CSCs were collecting from their own internal customer satisfaction surveys; the Air Force Institute of Technology conducted an independent audit. AFIT researchers deployed, collected, and reported results from more than 1,500 customer satisfaction surveys developed specifically for the CSC validation. Feedback showed that 88 percent of customers felt they were getting satisfactory or above service from their CSC. Another 64 percent reported they used the CSC at least weekly.

Another advantage of CSCs is that if an item manager is out of the office on sick leave or vacation, the center has staff duty officers who can track down the information needed without any delay, said George Swinehart the KC-135 Stratotanker Weapons Systems Spares manager at Scott AFB, Ill.

Accurate and timely information is what the warfighter needs most, said Les Parnacott, the director of supply operations at the Combat Air Forces Logistics Support Center at Langley AFB, Va.

"If the guy on the flight line in Iraq or Afghanistan knows a part will be in his hands in two days, odds are he won't have to cannibalize parts from other aircraft," Parnacott said. "There's nothing more frustrating than to cannibalize a part and four hours later that part shows up because the information wasn't available.

"And there's little that's more rewarding to the logisticians who created the CSCs than to hear positive feedback such as this comment that came from the Selfridge Air National Guard Base in Michigan: "The rest of the world should be this way."

AIR FORCE PRINT NEWS (MARCH 10, 2007)
LOGISTICS OFFICIALS DISCUSS STRATOTANKER SUSTAINMENT

Debra Bingham

RICHMOND, Va.— "Air Force and Defense Logistics Agency partnership is critical to success."

That's the message Michele Rachie, deputy director of the 827th Aircraft Sustainment Group at Tinker Air Force Base, Okla., focused on during her visit March 1.

Rachie met with members of Defense Supply Center Richmond's Aviation Customer Operations and Aviation Supplier Operations directorates to discuss KC-135 Stratotanker programmed depot maintenance supportability. During the morning session, Rachie briefed the DSCR team on the planning cycle for future programmed depot maintenance. She said her goal is to make sure that needed parts will be available for the maintainers to perform new work tasks at the four aircraft depot repair locations.

"The KC-135 celebrated its 50th birthday in September [2006]," Rachie said. While reaching that milestone is a testament to those who collectively work to sustain it, she said the ongoing mission is to "provide a healthy and effective fleet of KC-135 aircraft through 2040."

Air Mobility Command manages more than 490 KC-135 Stratotankers. The tankers provide aerial refueling support to Air Force, Navy, and Marine Corps aircraft as well as aircraft of allied nations. KC-135s also transport cargo and ambulatory patients during aeromedical evacuations.

As the war on terrorism continues, actual flight hours on the KC-135 continue to exceed the original planned hours.

"We're replacing parts we didn't plan on replacing, so partnering with DLA is the key to future supportability," Rachie said. She added that she also wanted to explore joint actions to ensure supportability for new actions that will begin in October.

Lt. Col. Joe Edwards, chief of the Oklahoma City Air Logistics Center customer relationship management cell, discussed its role in providing streamlined customer support. That process includes facing the customer directly to identify, prioritize, validate, and implement actions necessary to improve support.

U.S. Air Force Capt. James Wiley, of the 355th Fighter Squadron, positions his A/OA-10 Thunderbolt II aircraft behind a KC-135 Stratotanker aircraft from the 168th Air Refueling Squadron for aerial refueling over the Pacific Alaska Range Complex April 4, 2007. The 355th Fighter Squadron is tasked to provide mission ready A/OA-10s as well as search and rescue capability in Alaska and deployed sites worldwide.

U.S. Air Force photograph by Master Sgt. Robert Wieland, USAF

"Our goal is to continuously improve asset supportability," said Edwards. "Consistent communication and collaboration are a key part of that effort. That means building the relationship by meeting the key personnel, reviewing the joint business processes, and by looking for ways to make the human communication enhance the data exchange used in the business system modernization process."

David Huguet, DLA KC-135 weapon system support manager, said DLA manages over 100,000 items of supply that support KC-135 aircraft operations, in the form of aircraft spares and piece parts for support equipment.

Because the average age of the aircraft is over 45 years, engineers continue to find new areas that need parts replaced due to wear, metal fatigue, and corrosion.

"We face many challenges maintaining data and procuring the necessary parts to keep this fleet operational for its critical mission. The Air Force recognizes the need to partner with DLA to help meet its mission objectives, while allowing DLA to execute effective material support when both sides don't have unlimited funds, said Huguet.

Huguet said DLA recognizes that being proactive on customer-forecasted requirements will minimize the need for time-consuming and expensive expedite work later. That requires collaboration and the necessity of working from a common set of focused metrics.

Another discussion centered on DLA support to the upcoming KC-135 flight control overhaul program.

"This joint effort will require DSCR Supplier Operations to increase buying activity on almost 2,000 national stock numbers needed for the repair shops to perform deep overhaul on 26 aircraft flight control surfaces," Huguet said. "This will reduce maintenance manhours and cost burden to meet critical Air Force aircraft availability improvement goals."

Bingham is chief, Defense Supply Center Richmond Public Affairs.

ABERDEEN TEST CENTER FOCUSES ON WARFIGHTERS WHILE ADVANCING INNOVATIONS

Donna Miles

ABERDEEN PROVING GROUND, Md.—As the Defense Department hurries to get the latest weapons systems and protective equipment to deployed troops, the Aberdeen Test Center is operating at what its commander calls a "fast and furious rate" to ensure effectiveness and safety remain top priorities.

The center, on the shores of the Chesapeake Bay, is the most diverse of seven Department of Defense test facilities and is a critical partner in the Army's Rapid Fielding Initiative, said Col. John Rooney, center commander.

During the past two years, the center's scientists, technicians, and engineers have tested about 30 rapid fielding initiatives a week, with more than 1,400 tests conducted last year alone. There's been an 87 percent increase in range activity here since fiscal 2001.

"That's all being driven by technologies to support the warfighter in the global war on terror," Rooney said.

Technologies undergoing testing range from enhancements to improve the way vehicles operate in combat to protective gear that helps troops survive enemy attacks.

"Our focus is on identifying the best technology available now, getting that capability to the warfighter today, and then improving on it," Rooney said.

This concept, referred to as "spiral development," turns the military's traditional fielding method on its head. Rather than developing, testing, then fine-tuning systems before sending them to the field, the priority now is to get new technologies to the troops as quickly as possible, while continuing to improve on them, Rooney explained.

"We're inserting them into the war without the breadth and depth of testing we would go through in peacetime," he said. "There's a whole different dynamic of supporting an Army at war that's different from that in peacetime. You have to make sure you do an adequate job of testing, but not at the expense of withholding capabilities."

An up-armored Humvee undergoes a mine test at the Vehicle Vulnerability/Lethality Test Range at Aberdeen Test Center. The center, at Aber-deen Proving Ground, Md., tests equipment ranging from tanks to protective vests and helmets to ensure they're effective and safe for warfighters.

Photograph courtesy Aberdeen Test Center

Even with the big push to get new systems to deployed forces, Rooney said the military holds the line when it comes to safety. "We always do safety testing up front," he said. "But once we've done that, the big question becomes, 'What's enough testing to understand how the system is going to work in combat?'"

Evidence of this balancing act is prevalent throughout the combat theater. The Aberdeen Test Center staff tested for electromagnetic interference in Blue Force Tracker, a satellite-based Force XXI Battle Command, Brigade and Below communications system, as well as for additional radios placed on M1A1 Abrams command vehicles.

They tested new software for the tank's nuclear, biological, and chemical protective system, and a variety of bridging systems so deployed forces could cross gullies and low spots throughout the Iraqi desert.

But few examples demonstrate the emphasis on expedient fielding more clearly than how the military gets new vehicle protection to deployed troops.

As DoD's primary ground-vehicle tester, the Aberdeen Test Center started exploring ways to protect troops against roadside bombs in August 2003, as soon as these weapons began appearing in Iraq.

Rooney described the motivation that drove testers here to move quickly to evaluate the first add-on armor prototypes. "We knew that every day we didn't get the test finished was another day we weren't getting these kits to the field, and that could have a direct impact on someone's life," he said.

The earliest add-on armor kits sent to the combat theater had limitations, he acknowledged, but still offered far more protection than no additional armor. Even as these kits were being sent to the field, the Aberdeen Test Center staff continued to look into new systems to improve on them.

Since the start of the terror war, the center staff has subjected more than 500 potential solutions to the rigorous testing that takes place every day, Rooney said. These prototypes have been fired at to test their ballistic protection and run through simulators, computer models, and outdoor tracks to see how they stand up to real-world road conditions like they'll encounter in Iraq and Afghanistan.

A drive around the test ranges here—nine miles of interconnecting roads and 25 permanently constructed courses—shows some of the armor enhancements undergoing testing now. They range from a new add-on armor kit for Humvees that includes 450 pounds of armor to the front door alone and extra baseboard armor to a one-piece door assembly for the 5-ton M977 heavy expanded mobility tactical truck to an improved slat armor kit for the Stryker light armored vehicle.

The staff developed the initial prototype for the Stryker's slat armor—a cage-like apparatus bolted to the Stryker to protect it from rocket-propelled grenades—and Rooney calls it one of the staff's proudest achievements. Although the first users didn't necessarily like the slat armor's looks, they quickly grew to love its protective qualities, he said.

While continuing to seek out newer, more effective ballistic protections, the staff recognizes the impact of these improvements on overall vehicle performance, Rooney said. Putting additional armor on vehicles affects everything from the way they handle, to their tip-over point, to the life cycle of their shocks and suspension systems, to their overall reliability.

"Every time something gets added or placed on a vehicle, you have to look at the whole range of effects," Rooney said. "When you evaluate protective armors, you have to work hand-in-glove with the automotive side, because even if a vehicle stops everything in terms of ballistics, if it can't drive, it's of no value."

So evaluators put vehicles through the paces in both outdoor courses and indoor simulations to replicate the worst of real-world conditions. Vehicles get exposed to bumps, ditches, slopes, mud and sand courses, fording basins, and other difficult conditions similar to what deployed troops experience regularly.

"We're trying to create the circumstances that might cause failures so we can learn from it and address those issues," Rooney said. "The whole intent is to fully understand the vehicle's capability."

Once a vehicle passes through the rigors imposed, Rooney said he's confident they'll be ready for the demands warfighters will subject them to.

That's the mindset at the Aberdeen Test Center that Rooney said has continued to turn ideas into solutions for combat troops. "Our end product is a better equipped, better protected warfighter," he said.

As the Aberdeen Test Center supports today's warfighters, it's carrying on a tradition that began in 1917 when it helped prepare the military for World War I.

Today, the center continues testing a broad spectrum of military weapons systems and equipment: vehicles, weapon systems, ammunition, portable bridges, generators, night-vision devices, individual equipment ranging from boots and uniforms to helmets, and even surface and underwater naval systems.

As it conducts this testing, Rooney said the staff never loses sight of the men and women on the front lines whose lives are at stake.

"We are a very busy, very diverse, and very relevant test center, doing things people know matters," he said. "We are helping the warfighter tremendously. And because people here recognize the direct impact of what they're contributing, job satisfaction is pretty easy to come by here."

Miles writes for the American Forces Information Service.

DEPARTMENT OF DEFENSE NEWS RELEASE (MARCH 15, 2007)
SECRETARY OF THE NAVY RECOMMENDS WAY AHEAD FOR LITTORAL COMBAT SHIP PROGRAM

Based on a comprehensive review of the Littoral Combat Ship (LCS) acquisition program, Secretary of the Navy Donald C. Winter announced today that he is prepared to lift a previously issued stop work order for construction of LCS 3. The ship is currently under contract to Lockheed Martin Corp. Maritime Systems & Sensors unit, Moorestown, N.J. Lifting the stop work order is contingent upon the Navy and Lockheed Martin reaching agreement on a renegotiated contract.

As a result of a nearly two-month assessment, the Navy has revalidated the warfighting requirement and developed a restructured program plan for the LCS that will improve management oversight, implement more strict cost control, incorporate selective contract restructuring, and ensure that an important warfighting capability is provided to the fleet consistent with a realistic schedule.

This plan will ensure best value to the Navy for the completion of LCS ships 1-4, procurement of existing designs in fiscal 2008 and 2009 to fill the critical warfighting gap, and establish a sound framework for transition to a single selected design in fiscal 2010. The Navy will work closely with Congress on reprogramming actions necessary to bring this program forward.

"It is vital that the Navy continue through first-of-class construction challenges to complete LCS 1 and LCS 2. When these ships are delivered, we will be able to fully evaluate their costs and capabilities," said Winter. "LCS 3 construction may be resumed under revised contract terms that rebalance the risk of cost growth between the government and industry. LCS 4 construction will continue as long as its costs remain defined and manageable."

Under the restructured program plan, the Navy will recommend deferral of procurement of LCS in fiscal 2007 and use those funds to complete the construction of LCS 1-4. The Navy intends to continue with a plan to procure a reduced number of ships in fiscal 2008 and 2009 within existing budget resources and with the approval of Congress because of the compelling need to address critical warfighting gaps in the littorals and strategic choke points.

The Navy will transition to a single seaframe configuration, incorporating a Navy-specified open architecture combat system, in fiscal 2010 after an operational assessment of all critical factors between LCS 1 and LCS 2. The Navy will hold a full and open competition of the selected design (flight 1) for the fiscal 2010 seaframe procurement to reduce life cycle costs of the program.

"LCS is needed now to fill critical, urgent warfighting requirements gaps that exist today. It is imperative that the Navy deliver this warship class and its important capabilities to the fleet as soon as possible," said Chief of Naval Operations Adm. Mike Mullen. "It is just as imperative that we do so in the most cost-effective manner possible."

The LCS is an entirely new type of U.S. Navy warship. A fast, agile, and networked surface combatant, LCS's modular, focused-mission design will provide combatant commanders the required warfighting capabilities and operational flexibility to ensure maritime dominance and access for the joint force. LCS will operate with focused-mission packages that deploy manned and unmanned vehicles to execute missions as assigned by combatant commanders.

WASHINGTON (March 15, 2007) - Secretary of the Navy Donald C. Winter discusses the Littoral Combat Ship (LCS) acquisition program during a press conference in the Pentagon. The new program plan will improve management oversight, implement more strict cost controls, incorporate selective contract restructuring, and ensure vital warfighting capability is provided to the fleet in a timely manner.
U.S. Navy photograph by Chief Mass Communications Specialist Shawn P. Eklund

Operational experience and analyses indicate that potential adversaries will employ asymmetric capabilities to deny U.S. and allied forces access in critical coastal regions to include strategic choke points and vital economic sea lanes. Asymmetric threats will include small, fast surface craft, ultra-quiet diesel submarines, and various types of mines.

LCS will also perform special operations forces support; high-speed transit; maritime interdiction operations; intelligence, surveillance, and reconnaissance; and anti-terrorism/force protection. While complementing capabilities of the Navy's larger multi-mission surface combatants, LCS will also be networked to share tactical information with other Navy aircraft, ships, submarines, and joint units.

For further information, contact the Navy Office of Information at (703) 697-5342 .

DEPARTMENT OF DEFENSE NEWS RELEASE (MARCH 20, 2007)
AIR FORCE, DLA JOINTLY PLAN FOR BRAC 2005 IMPLEMENTATION
Sue Murray • Lynne Allen

WRIGHT-PATTERSON AIR FORCE BASE, Ohio— Efforts are under way by a joint implementation team to plan the execution of the Base Realignment and Closure 2005 Supply, Storage, and Distribution Management Reconfiguration decision at Warner Robins Air Logistics Center, Robins Air Force Base, Ga.

The team consists of Air Force Materiel Command and Defense Logistics Agency personnel charged with creating a plan of action and milestones for the supply, storage, and distribution implementation. The action plan will define specific tasks to be completed that will support a successful transfer of functions and people without degradation of support to readiness and the warfighter.

The BRAC 2005 decision calls for the Department of Defense to reconfigure its industrial supply, storage, and distribution infrastructure into one integrated provider supporting WR-ALC depot maintenance requirements. This infrastructure will reduce duplication of functions and inventory, optimize resources, and streamline processes. WR-ALC is the first of the Air Force's three air logistics centers and the first of 13 industrial sites across all four military services to implement this BRAC decision.

According to Army Brig. Gen. Dave Kee, executive director of the DLA BRAC Implementation Office, the main focus continues to be support to the warfighter.

"As we continue to integrate with the Air Force BRAC implementation team to meet the BRAC 2005 decisions, DLA pledges to ensure uninterrupted customer support," said Kee.

"The joint implementation team is at the forefront of planning a critical transformation of the DoD supply chain," said Lorna Estep, deputy director of supply for AFMC's Directorate of Logistics.

"Our depots deliver the aircraft and repair parts that keep Air Force missions flying. A superb plan, executed well, will ensure our maintenance lines keep delivering and our Air Force keeps flying."

This joint implementation planning team will serve as a model for subsequent DoD SS&D implementations at the Tinker and Hill Air Logistics Centers, as well as the other military industrial sites.

Plans call for supply, storage, and distribution implementation to take place at AFMC's air logistics centers in fiscal 2008. WR-ALC is planned for the first quarter; Oklahoma City ALC at Tinker AFB, Okla., is scheduled for the second quarter; and Ogden ALC at Hill AFB, Utah, is scheduled for the third quarter.

Murray is with the Materiel Readiness Project Office and Allen, the BRAC Implementation Office.

AMERICAN FORCES PRESS SERVICE (MARCH 29, 2007)
MISSILE DEFENSE SYSTEM PROTECTS UNITED STATES, ALLIES
John J. Kruzel

WASHINGTON—The United States has been fielding a missile defense system aimed toward defending itself, its deployed forces, and its allies against emerging threats, a top Air Force official said March 28.

"We initially turned our attention to North Korea because we felt that that had the higher sense of urgency, and we believe that that was somewhat justified by the activities last summer," said Lt. Gen. Henry A. "Trey" Obering III, director of the U.S. Missile Defense Agency, referring to North Korea's July 2006 missile tests.

"We have since begun to turn our attention to Iran, as well," he told reporters at a State Department foreign press briefing on missile defense and Europe.

Obering said he has briefed the NATO-Russia Council and has opened discussions with German, French, and Ukrainian officials in their respective European capitals. Talks with the Czech Republic and Poland are ongoing; and visits to Spain, Turkey, Greece, and Hungary to discuss missile defense issues will take place in coming weeks, he said.

During these discussions, Obering said he has been asked several recurring questions.

"I get asked, 'Well, first of all, doesn't this upset the balance that we've achieved in the past between deterrence? And what about arms control? Doesn't this contradict arms control measures?'" he said.

Obering said he reminds European officials that missile defense is part of a spectrum.

"It's part of an entire toolbox that we try to use to address the ballistic missile threat," he said. "At one end of that spectrum you have deterrence, and we believe that that is still a very viable concept.

"We also believe, though, that we may come into contact with nation-states or non-state actors that are not deterrable, that are not affected by arms control measures," he continued. "And when you have warheads flying in the air, it is a moral obligation to do something about that for the population (rather) than turning around and just saying, 'Sorry, we can't do anything about that.'"

General Obering said ballistic missiles, which have proliferated for many years around the world, would be made less valuable by a global missile defense system.

"If you begin to deploy defensive capabilities to where you can negate these missiles, it begins to devalue them ... to the nations or to the organizations [that have them],

> **"Missile defense is part of a spectrum ... it's part of an entire toolbox that we try to use to address the ballistic missile threat. At one end of that spectrum you have deterrence, and we believe that that is still a very viable concept."**
>
> **--Lt. Gen. Henry A. "Trey" Obering III**
> **Director, Missile Defense Agency**

because we believe we can render them ineffective," he said.

Obering emphasized that missile defense weapons are "defensive assets."

"These are not offensive missiles. They do not even carry warheads. There are no explosives on these missiles," he said. "We operate on a hit-to-kill technology, which [means] we actually drive a very small kill vehicle into an enemy warhead to destroy it."

This method is effective, Obering said, because the missiles used are so small and fast, they destroy enemy warheads with kinetic energy. "In fact, the kill vehicles that we're talking about that would be placed on the interceptors in Poland are no more than about 70 to 75 kilograms," he said.

Listing the system's recent benchmarks, Obering said that since 2001, the United States has had 24 successful hit-to-kill intercepts in about 32 attempts, including about 15 consecutive successful intercepts, over roughly the past two-and-a-half years.

"We have had very good success in the past two-and-a-half years with respect to testing of this system," he said. "It is a capability that does work, and that we will rely on as we move into this 21st century."

ARMY NEWS SERVICE (MARCH 29, 2007)
AERIAL COMMON SENSOR GETS GREEN LIGHT FROM ARMY LEADERSHIP

Lt. Col. Carl Ey, USA

WASHINGTON—The Army's next-generation airborne intelligence, surveillance, and reconnaissance platform has a new runway to get off the ground.

"The Army remains committed to ACS (Aerial Common Sensor) to meet current and emerging reconnaissance, surveillance, and target acquisition requirements," said Col. John Burke, deputy director, Army Aviation, Deputy Chief of Staff for Operations and Plans at the Pentagon.

The ACS is intended to detect troop movements, intercept enemy communications and radar transmissions, and communicate with other aircraft.

After terminating an $879 million contract with Lockheed Martin for the development of the system in early 2006, the Army is returning to the drawing board to focus on system requirements.

"The prudent course of action at this time was to terminate the contract and bring the various players—industry, the acquisition and user communities, the Navy and Air Force—back to the drawing board to make sure we all have a firm understanding of what the requirements are and the various challenges we need to overcome to make this program succeed," said Claude M. Bolton, assistant secretary of the Army for Acquisition Logistics and Technology in 2006. "We are not terminating the program."

Vice Chief of Staff of the Army Gen. Richard A. Cody approved the development of an ACS blocked requirements and acquisition strategy March 16. By blocking the acquisition, the ACS capability can achieve the full system's performance by taking advantage of mature payloads early and then integrating those in development when prudent, he said.

"We didn't want to wait 10 years or more for the big bang of trying to wait for everything at once," Cody said.

An Armywide team is now assessing requirements, acquisition, and funding, and will report findings in all areas in a decision briefing next quarter.

In the next 60 days, the Army will:

- Refine the specific ACS requirements in a blocked strategy and develop an acquisition strategy to meet these requirements against the desired capability delivery timeline
- Establish an interoperability plan with the Navy's similar capability for their maritime applications
- Develop the manned-unmanned teaming concept to operations
- Conduct a mini-joint functional needs analysis
- Use all the expertise in our intelligence, aviation, and communications domains to bear against the ACS requirements.

ACS is a responsive, worldwide, self-deployable, airborne Reconnaissance, Surveillance, Targeting and Acquisition/Intelligence, Surveillance, Reconnaissance system capable of providing real-time sensor-to-shooter information.

The ACS initiative will merge and improve the capabilities of the Army's Guardrail Common Sensor and Airborne Reconnaissance Low systems into a single multifunction platform, and eventually replace those legacy airborne ISR systems.

DEPARTMENT OF DEFENSE NEWS RELEASE (APRIL 2, 2007)
FISCAL 2007 NEW START AND ADDITIONAL FISCAL 2006 JOINT CAPABILITY TECHNOLOGY DEMONSTRATIONS ANNOUNCED

The Department of Defense announced the selection of seven Joint Capability Technology Demonstration (JCTD) projects for fiscal 2007 and three JCTD projects that started at the end of fiscal 2006.

Entering its second year, the JCTD business model replaces the Advanced Concept Technology Demonstration model in fiscal 2007 to rapidly move advanced technology and innovative concepts into the hands of warfighters in the field.

Building on the successful ACTD model in which new operational concepts are combined with maturing technologies in a joint environment, JCTDs focus more on tailoring projects to a combatant commander's specifically identified needs—emphasizing "needs pull" over historical "technology push."

This new program will enable faster project start-up by providing: 1) more resources earlier in the traditional two-year DoD budget cycle, and 2) a flexible start process

that facilitates urgently needed combatant command-driven capabilities throughout the fiscal year.

One key aspect of the new JCTD program is the enhanced transition planning process, which seeks to deliver enduring capabilities to the combatant commands.

The new program also will:
- Demand faster fielding of interim capabilities
- Structure funding to provide incentives for military service and agency participation without requiring the Services or agencies to fund from their existing programs
- Provide Services and agencies clear visibility in their participation of joint efforts.

Fiscal 2007 New Starts

Tactical Service Provider (TSP)—Mobile, wireless, high-throughput broadband connections over long distances

Mapping the Human Terrain (MAP-HT)—Visualization of socio-cultural information

Joint Multi-Mission Electro-Optical System (JMMES)—Counter camouflage, concealment, and deception

Smart Threads Integrated Radiation Sensors (STIRS)—Radiation sensors for state-of-the-art maritime interdiction and battlefield radiation detection

Maritime Automated Supertrack Enhanced Reporting (MASTER)—Enhanced maritime tracking

Internet Protocol Router In Space (IRIS)—Satellite Internet resource allocation capabilities

Coalition Mobility System (CMS)—Rapid access to and coordination of coalition movements.

There were also three later fiscal 2006 new starts:

Coalition Joint Spectrum Management Planning Tool (CJSMPT)—Radio frequency coordination

Regional Maritime Awareness Capability (RMAC)—Collaborative surface vessel location and tracking for ungoverned maritime environments

Focused Lethal Munition (FLM)—Collateral damage minimization using precision-guided weapon.

For more information on the ACTD/JCTD programs and project summaries, visit < www.acq.osd.mil/jctd >.

DEPARTMENT OF DEFENSE NEWS RELEASE (APRIL 9, 2007)
DEPARTMENT OF DEFENSE RELEASES SELECTED ACQUISITION REPORTS

The Department of Defense has released details on major defense acquisition program cost, schedule, and performance changes since the September 2006 reporting period. This information is based on the Selected Acquisition Reports (SARs) submitted to the Congress for the December 2006 reporting period.

SARs summarize the latest estimates of cost, schedule, and performance status. These reports are prepared annually in conjunction with the president's budget. Subsequent quarterly exception reports are required only for those programs experiencing unit cost increases of at least 15 percent or schedule delays of at least six months. Quarterly SARs are also submitted for initial reports, final reports, and for programs that are rebaselined at major milestone decisions.

The total program cost estimates provided in the SARs include research and development, procurement, military construction, and acquisition-related operations and maintenance (except for pre-Milestone B programs, which are limited to development costs pursuant to 10 USC §2432). Total program costs reflect actual costs to date as well as future anticipated costs. All estimates include anticipated inflation allowances.

The current estimate (shown at the top of the next page) represents program acquisition costs for programs covered by SARs for the prior reporting period (September 2006) was $1,617,710.1 million. After adding the costs for two new programs, Longbow Apache Block III and the Light Utility Helicopter (LUH) from the September 2006 reporting period, the adjusted current estimate of program acquisition costs was $1,627,687.0 million.

For the December 2006 reporting period, there was a net cost increase of $56,286.8 million or +3.5 percent, excluding costs for the aforementioned programs submitting initial SARs. The net cost increase was due to a net stretchout of development and procurement schedules (+$22,644.8 million), higher program cost estimates (+$18,888.6 million), an increase in support requirements (+$14,381.7 million), the application of higher escalation rates (+$6,957.0 million), additional engineering changes (hardware/software) (+$3,188.4 million), and the impacts on LPD 17 from Hurricane Katrina (+$1,075.6 million). These increases were partially offset by a net decrease of planned quantities to be pur-

CURRENT ESTIMATE ($ IN MILLIONS)

September 2006 (87 programs) $1,617,710.1

    Plus two new programs
       (Longbow Apache Block III
       and LUH) . . . .+9,976.9

September 2006 Adjusted
    (89 programs) $1,627,687.0

Changes Since Last Report:
    Economic . . . .$ +6,957.0
    Quantity . . . .-7,454.6
    Schedule . . . .+22,644.8
    Engineering . . . .+3,188.4
    Estimating . . . .+18,888.6
    Other . . . .-2,319.1
    Support . . . .+14,381.7
          Net Cost Change . . . .$+56,286.8

December 2006 (89 programs) $1,683,973.8

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chased (-$7,454.6 million) and the termination of the Land Warrior program (-$3,394.7 million). Further details of the most significant changes are summarized below by program.

There are eight programs with Nunn-McCurdy unit cost breaches to their "current" or "original" acquisition program baselines (APBs): C-130 Avionics Modernization Program (AMP), Expeditionary Fighting Vehicle (EFV), Force XXI Battle Command Brigade and Below Program (FBCB2), Guided Multiple Launch Rocket System (GMLRS), Joint Air-to-Surface Standoff Missile (JASSM), Joint Primary Aircraft Training System (JPATS), Land Warrior, and Warfighter Information Network-Tactical (WIN-T). That is, the program acquisition or average procurement unit costs for these programs have increased by 15 percent or more to their "current" APB or by 30 percent or more to their "original" APB. For those programs that have increased by 25 percent or more to their "current" APB or by 50 percent or more to their "original" APB (i.e., C-130 AMP, EFV, GMLRS, JASSM, JPATS, Land Warrior, and WIN-T), a determination of whether to certify the programs will be made no later than June 5, 2007, except Land Warrior, which will not require certification because the program was terminated.

New SARs (As of December 2006)
The Department of Defense has submitted initial SARs for the following programs for the December 2006 re-

porting period. These reports do not represent cost growth. Baselines established on these programs will be the point from which future changes will be measured.

Summary Explanations of Significant SAR Cost Changes As of Dec. 31, 2006

CURRENT ESTIMATE ($ IN MILLIONS)

Program

DIMHRS (Defense Integrated
    Military Human Resources
    System . . . .$ 805.1
ERM (Extended Range
    Munition .1,478.0
FAB-T (Family of Beyond
    Line-of-Sight Terminals) 3,167.4
NMT (Navy Multiband
    Terminal .2,133.8
RMS (Remote Minehunting
    System) 1,411.7
VTUAV (Vertical Takeoff and
    Landing Tactical Unmanned
    Aerial Vehicle) 2,100.6

Total $11,096.6

Army
ARH (Armed Reconnaissance Helicopter)—Program costs increased $1,787.4 million (+49.6 percent) from $3,602.8 million to $5,390.2 million, due primarily to a quantity increase of 144 aircraft from 368 to 512 aircraft to support the Air National Guard combat aviation brigades (+$901.6 million). There were estimating allocations* (+$85.0 million) as well as increased spares and support (+$570.3 million) associated with the quantity increase. Costs also increased due to higher estimates for production (+$295.7 million) and the application of revised escalation indices (+$41.0 million).

FCS (Future Combat System)—Program costs decreased $2,698.2 million (-1.6 percent) from $164,628.3 million to $161,930.1 million, due primarily to the program adjustments that deferred the Class II and Class III Unmanned Aerial Vehicles (UAVs), Armed Robotic Vehicles-Assault (ARV-A), Armed Robotic Vehicles-Reconnaissance (ARV-R), and Intelligent Munition Systems (IMS) (-$17,557.9 million). These decreases were partially offset by revised cost estimates based on a more detailed

design (+$1,364.9 million), and a procurement stretchout from 1.5 brigade combat teams (BCTs) to 1.0 BCTs per year (+$10,573.7 million) and associated increases in support costs (+$3,260.7 million).

FMTV (Family of Medium Tactical Vehicles)—Program costs increased $3,351.9 million (+19.2 percent) from $17,450.1 million to $20,802.0 million, due primarily to the addition of Long Term Armor Strategy (LTAS) A-Cab (+$1,257.1 million) and associated LTAS installation kits (+$1,319.1 million). There were also increased recurring costs for planned model mix changes (+$672.8 million) and the application of revised escalation rates (+$64.6 million). These decreases were partially offset by an acceleration of the annual procurement buy profile (-$149.7 million).

GMLRS (Guided Multiple Launch Rocket System)—Program costs decreased $9,262.2 million (-57.8 percent) from $16,034.7 million to $6,772.5 million, due primarily to a quantity reduction of 96,444 rockets from 140,004 to 43,560 rockets (-$8,922.7 million) and associated schedule and estimating allocations* (-$1,645.2 million). These decreases were partially offset by a stretchout in the annual procurement buy profile (+$292.7 million) and increased unit costs of the lower annual buys (+$936.3 million).

HIMARS (High Mobility Artillery Rocket System)—Program costs decreased $1,249.4 million (-37.4 percent) from $3,338.1 million to $2,088.7 million, due primarily to a quantity reduction of 210 launchers from 591 to 381 (-$924.1 million) and associated schedule and estimating allocations* (-$448.1 million). These decreases were partially offset by higher estimates based on actuals (+$96.7 million) and the application of revised escalation rates (+$29.6 million).

Land Warrior—Program costs decreased $3,382.8 million (-83.4 percent) from $4,054.2 million to $671.4 million, due to termination of the program by the Army Acquisition Executive.

Longbow Apache—Program costs increased $1,629.6 million (+17.3 percent) from $9,405.2 million to $11,034.8 million, due primarily to a quantity increase of 29 war replacement aircraft (+$850.0 million) and 24 Extended Block II aircraft (+$309.5 million). As a result, the total quantity increased 53 aircraft from 613 to 666 aircraft. There were also programmatic changes in Longbow Apache requirements, such as the Modernized Target Acquisition Designation Sight/Pilot Night Vision Sensor (MTADS/PNVS), which increased the estimated costs (+$412.6 million).

Longbow Apache Block III—Program costs increased $896.5 million (+11.1 percent) from $8,093.9 million to $8,990.4 million, due primarily to a quantity increase of 37 aircraft from 602 to 639 aircraft (+$395.5 million). There were also increases in software maintenance and system engineering/program management costs due to the increase in aircraft quantity and a stretchout of procurement profile (+$353.0 million).

Stryker—Program costs increased by $1,770.1 million (+15.6 percent) from $11,360.8 million to $13,130.9 million, due primarily to a quantity increase of 256 vehicles from 2,641 to 2,897 vehicles (+$1,058.9 million) and associated spares and support (+$254.2 million). There were also increases from an extension of the procurement schedule from fiscal year 2011 to fiscal year 2012 (+$213.8 million), and the addition of development effort for the mast-mounted sensor, active protection systems, and mobile gun system environmental control (+$236.9 million). These increases were partially offset by a change in the mix of models to be procured (-$357.1 million).

WIN-T (Warfighter Information Network-Tactical)—Program costs increased by $2,190.9 million (+15.5 percent) from $14,170.5 million to $16,361.4 million, due primarily to an increase in communications equipment to procure for the Total Army (+$1,517.9 million). Costs also increased due to a refinement of the estimate for recurring engineering (+$559.4 million), an increase in flyaway cost to account for technology changes during the procurement schedule (+$417.5 million), and an increase in fielding and initial spares (+$386.6 million). These increases were partially offset by a decrease due to the removal of Joint Tactical Radio System (JTRS) equipment (-$482.0 million) and a reduction in technical refresh and post deployment sustainment and support (-$483.1 million).

Navy
ADS (Advanced Deployable System)—Program costs decreased $883.8 million (-62.6 percent) from $1,412.6 million to $528.8 million, due to termination of the program by the Navy Acquisition Executive in October 2006.

E-2D AHE (Advanced Hawkeye)—Program costs increased by $1,765.5 million (+11.2 percent) from $15,721.5 million to $17,487.0 million, due primarily to higher Mission Electronics, general procurement, and

mission systems pricing (+$653.7 million), a stretchout of the annual buy profile in fiscal year 2009-2020 (+$374.8 million), and additional pilot production funding (+$169.0 million). There were also increases for the addition of the automatic identification system, dual transit satellite communication, and in-flight refueling requirements (+$137.1 million), a revised estimate to reflect new pricing for the system development and demonstration contract (+$234.3 million), and increases in initial spares, peculiar support equipment and training, and other production support costs (+$159.1 million).

F/A-18E/F—Program costs increased by $2,358.3 million (+5.4 percent) from $44,030.5 million to $46,388.8 million, due primarily to the increase of 32 aircraft from 462 to 494 aircraft (+$1,716.0 million) and associated schedule, engineering, and estimating allocations* (+$334.1 million). There were also increases in support costs related to the higher quantity (+$446.5 million).

LCS (Littoral Combat Ship)—Program costs increased $237.0 million (+13.9 percent) from $1,701.9 million to $1,938.9 million, due primarily to longer than expected development time for Flight 0 and the postponement of Flight 1 (+$162.2 million). There was also additional scope for Mission Module development and Flight 0 training and testing (+$73.0 million) and sea frame pricing increases (+$25.9 million).

LPD 17—Program costs increased by $1,107.4 million (+8.9 percent) from $12,486.6 million to $13,594.0 million, due primarily to the addition of Hurricane Katrina Supplemental funding (+$1,155.4 million).

SSN 774 (Virginia Class)—Program costs decreased by $2,813.5 million (-2.9 percent) from $95,821.7 million to $93,008.2 million, due primarily to a lower estimate for labor, materials, rates, and profit (-$1,971.1 million). Cost estimates also decreased for the technology insertion of the advanced sail program (-$541.8 million) and a reduced estimate of plans, change orders, hull, and mechanical/electrical changes (-$549.2 million).

V-22—Program costs increased $4,139.7 million (+8.2 percent) from $50,497.1 million to $54,636.8 million, due primarily to revised airframe and engine costing methodologies (+$3,147.9 million), and a stretchout of the annual buy profile (+$218.8 million). There was also additional schedule variance for manufacturing inefficiencies, outyear labor rates, and sustaining work impacts from delaying 22 MV-22 aircraft beyond fiscal year

2013 (+$538.4 million) and the application of revised escalation rates (+$283.6 million).

Air Force
AMRAAM (Advanced Medium Range Air-to-Air Missile) —Program costs increased $1,603.2 million (+12.2 percent) from $13,188.7 million to $14,791.9 million, due primarily to lower-than-expected Foreign Military Sales (FMS) projections (+$557.9 million) and an acquisition strategy pricing change (+$859.2 million). There were also increases related to a stretchout of the annual procurement buy profile (+$93.7 million), additional special tooling and test equipment (+$54.8 million), and an overrun in the AIM-120D (Phase 4) system development and demonstration contract (+$32.7 million).

C-5 AMP (Avionics Modernization Program)—Program costs increased $551.2 million (+64.1 percent) from $859.3 million to $1,410.5 million, due primarily to a quantity increase of 51 kits from 59 to 110 (+$291.4 million), and associated increases in initial spares, peculiar support equipment, and other weapon system costs (+229.1 million).

C-17A—Program costs increased by $2,909.9 million (+4.9 percent) from $59,552.7 million to $62,462.6 million, due primarily to an increase of 10 aircraft from 180 to 190 aircraft (+$2,093.9 million) and revised peculiar support estimates (+$618.5 million). There were also Congressional adds in support of the global war on terrorism (GWOT) (+$227.5 million), higher estimates for continuing development (+$126.0 million), and an extension of the development program out to fiscal year 2012-2013 (+$450.1 million). These increases were partially offset by revised project estimates and Air Mobility Command priorities (-$364.0 million) and a revised production shutdown estimate (-$271.2 million).

C-130 AMP (Avionics Modernization Program)—Program costs increased $1,047.8 million (+21.2 percent) from $4,933.2 million to $5,981.0 million, due primarily to increases in labor rates and install hours (+$691.4 million) and increases in mission support equipment, simulator/trainers, depot costs, and other weapon system costs (data, peculiar support equipment, interim contractor support and training (+810.5 million). These increases were partially offset by a quantity decrease of 166 aircraft from 434 to 268 aircraft (-$560.6 million).

EELV (Evolved Expendable Launch Vehicle)—Program costs increased $3,825.9 million (+12.0 percent) from

$31,903.0 million to $35,728.9 million, due primarily to increased costs for Buy 3 Launch Services (+$3,943.5 million) and Launch Capabilities contracts (+$298.4 million). There were also increases for the application of revised escalation rates (+$214.5 million) and an adjustment to the annual mission procurement buy profile (+$55.0 million). These net increases were partially offset by budget reductions (-$365.4 million) and estimating adjustments (-$319.7 million).

F-22A—Program costs increased $2,692.7 million (+4.3 percent) from $62,600.0 million to $65,292.7 million, due primarily to a revised estimate for the replan of Increments 3.1 and 3.2 (+$1,987.1 million), the additional of funding for the first year of multiyear procurement (+$1,416.5 million), an increase in peculiar support for two operating locations (+$311.1 million), and the application of revised escalation indices (+$197.1 million). These increases were partially offset by reductions in development funding for the modernization program (-$110.0 million), revised estimates for the second and third years of multiyear procurement (-$980.6 million), and an acceleration of the annual procurement buy profile from a four-year to a three-year schedule (-$161.1 million).

GBS (Global Broadcast Service)—Program costs increased $111.3 million (+15.0 percent) from $744.0 million to $855.3 million, due primarily to a new GBS Simplified Robust Architecture (SRA) that will address broadcast shortfalls. The SRA upgrade is scheduled for implementation in fiscal year 2008-2010. Beginning in fiscal year 2008, the SRA upgrade will develop custom software, procure commercial hardware/software, integrate into the Defense Enterprise Computing Centers (DECCs), integrate Joint Internet Protocol Modem (JIPM) hubs into two Ultra-high Frequency Follow-on (UFO) uplink sites, establish JIPM upgrade kits for receive suites, transition to DoD teleports as required for wideband gap-filler satellite (WGS) broadcasts, and perform developmental/operational tests leading to follow-on operational test and evaluation events.

JASSM (Joint Air-to-Surface Standoff Missile)—Program costs increased by $882.3 million (+18.0 percent) from $4,914.0 million to $5,796.3 million, due primarily to engineering increases for JASSM extended range, weapon data link, and maritime interdiction (+$133.9 million), implementation of a robust reliability improvement program (+$599.8 million), and stretchout of the annual buy profile (+$79.7 million).

MP-RTIP (Multi-Platform Radar Technology Insertion Program)—Program costs decreased by $321.7 million (-20.6 percent) from $1,559.7 million to $1,238.0 million, due primarily to the termination of MP-RTIP Wide Area Surveillance (WAS) radar development efforts associated with the E-10A technology development program (-$351.0 million).

NPOESS (National Polar-Orbiting Operational Environmental Satellite System)—Program costs decreased by $2,649.6 million (-19.2 percent) from $13,810.2 million to $11,160.6 million, due primarily to the decisions made as a result of a Nunn-McCurdy certification process that concluded in June 2006. The findings and recommendations coming out of the Nunn-McCurdy certification resulted in significant changes to the satellite procurement quantity, launch dates, sensor payloads, and funding. The Conical Scanning Microwave Imager/Sounder (CMIS) and seven other sensors were demanifested from the program (-$570.6 million), the development baseline program was restructured (-$506.2 million), the quantity of procurement satellites was reduced from 4 to 2 (-$594.5 million), the procurement baseline program was restructured (-$772.2 million), and the procurement costs were reduced due to the demanifestation of the sensors (-$292.1 million).

DoD

BMDS (Ballistic Missile Defense System)—Program costs increased by $17,377.4 million (+20.2 percent) from $85,910.7 million to $103,288.1 million, due primarily to the addition of fiscal year 2012 and fiscal year 2013 funding (+$19,350.1 million), increases in Terminal High Altitude Area Defense program content (+$1,036.0 million), restructure of the Sea-Based Terminal program (+$860.4 million), additional sensors to support a proposed European site (+$2,489.3 million), and revised escalation indices (+$727.6 million). These increases were partially offset by delaying the Space Tracking and Surveillance System beyond fiscal year 2013 (-$1,472.3 million), restructuring the Kinetic Energy Interceptor program (-$3,396.5 million), and program-wide reductions (-$2,304.4 million).

F-35 (Joint Strike Fighter)—Program costs increased by $23,365.2 million (+8.5 percent) from $276,458.9 million to $299,824.1 million, due primarily to a decrease in the annual procurement quantities and a stretchout of the production buy schedule from fiscal year 2027 to fiscal year 2034 (+$11,207.8 million), revised estimate for airframe materials due to commodity market increases (+$5,472.8 million), increase due to revised as-

sumptions based on contractor LRIP I proposals and methodology (+$8,307.1 million), and support increase due to aircraft configuration update, revised procurement profile, and methodology changes (+$6,423.2 million). These increases were partially offset by revised assumptions for prime and subcontractor labor rates (-$3,576.3 million) and revised assumptions for subcontractor costs (-$5,201.4 million).

JTRS (Joint Tactical Radio System) Waveform—Program costs increased $317.5 million (+17.8 percent) from $1,786.6 million to $2,104.1 million, due primarily to revised estimate for Network Engineering Services (NES) (+$241.0 million) and fiscal year 2008 President's Budget updates (+$65.7 million).

* Note: Quantity changes are estimated based on the original SAR baseline cost-quantity relationship. Cost changes since the original baseline are separately categorized as schedule, engineering, or estimating "allocations." The total impact of a quantity change is the identified "quantity" change plus all associated "allocations."

ARMY NEWS SERVICE (APRIL 2, 2007)
ARMY TO FIELD IMPROVED BODY ARMOR

Debi Dawson

FORT BELVOIR, Va.—The Army continues to upgrade body armor to increase protection from bullets and fragments, and soon will field the Improved Outer Tactical Vest to soldiers deploying to Iraq and Afghanistan.

The IOTV meets Program Executive Office Soldier's goals of providing soldiers with the most advanced protective gear available while also improving comfort and mission effectiveness.

"The IOTV is more than three pounds lighter than the current OTV, but provides an equal level of protection over an increased area," said Brig. Gen. R. Mark Brown, Program Executive Officer Soldier. "This vest epitomizes our continuous efforts to seek the next improvement and to provide our soldiers the best body armor available, bar none. It is live-fire tested—we know it will prove itself in combat."

"The weight of the IOTV was reduced by eliminating overlap," said Maj. Carl Fulmore, assistant product manager for Soldier Survivability. "With the IOTV, we were able to streamline previous improvements."

For example, the vest now has a higher cut in the underarm area, which will eliminate the need to attach the axillary or underarm protector to the current deltoid axillary protector set. The deltoid protector can still be attached at the commander's discretion. The vest's integrated throat protector provides the same protection as the current attachable version, but it's designed to be more comfortable. The now integrated side plate carriers decrease the vest's profile, and a lower back protector extends the vest's coverage by 52 square inches.

The IOTV's numerous improvements go beyond increased protection. A single-stage quick release added to the front of the vest allows a soldier to doff the IOTV and its attachments with one pull. The vest then falls to the ground in two pieces and can be put back together in minutes. "This feature would be used by soldiers in emergency situations only, such as being trapped in an overturned or submerged vehicle. It's not meant to simply be a quick way to get out of the IOTV at the end of the day or mission," Fulmore said.

Medics could use the quick release to treat wounded soldiers, or they could use an opening on the left shoulder, which allows easy access while still providing protection to the patient.

Comfort and utility features are also part of the improved design. The most notable may be the IOTV's overhead opening. An internal waistband provides a snug fit and moves much of the weight from the shoulders to the waist.

"This design significantly decreased the vest's profile and should increase mobility. We believe mobility equals survivability." Fulmore said.

Other features include:
- The addition of a long variant to sizes medium through extra large. This extends the size range from eight to 11 and should result in a near-custom fit for soldiers.
- Additional modular lightweight load-carrying equipment attachments as a result of moving the opening from the front of the vest. These attachments are now in the universal camouflage pattern.
- Enhanced small arms ballistic insert pockets with four inches of vertical adjustability, which will allow for better placement of the plates based on individual body proportions.
- Additional storage pockets.
- A mesh lining to aid ventilation.
- Vertical adjustability of side plate carriers.

Soldiers will continue to use the enhanced small arms protective inserts and the enhanced side ballistic inserts.

The IOTV is a result of research and development that began with a body armor industry day in the spring of 2006. Seventeen vendors came forward with designs for improved body armor, and six were selected to provide prototypes for a user evaluation conducted in January and February this year. The vest was then tested by soldiers at Fort Lewis, Wash.

Dawson writes for Program Executive Office Soldier Strategic Communications Office.

ARMY NEWS RELEASE (APRIL 4, 2007)
PICATINNY DESIGNS LATEST ADVANCEMENT IN GUNNER PROTECTION
Picatinny Arsenal Public Affairs Office

PICATINNY ARSENAL, N.J.—The Armament Research, Development and Engineering Center at Picatinny has designed a new armor shield that provides much needed protection for Humvee gunners in combat situations.

The Picatinny Objective Gunner Protection Kit was a joint development by Picatinny engineers and soldiers recently returned from active duty in Iraq. With more than 2,500 of the systems already being used in theater, the O-GPK is currently in mass production at Army depots and field-ready kits are arriving in Iraq and Afghanistan on a weekly basis.

"The O-GPK provides significant force protection and situational awareness for the Humvee gunner," said Thomas Kiel, lead designer of the O-GPK. "The system includes a combination of steel and transparent armor that is configured to protect our soldiers against enemy rifle fire and IED blasts."

The O-GPK includes transparent armor windows and rear-view mirrors that allow soldiers to maintain a protected posture while performing mission objectives with full visibility through the windows. The kit is modular and utilizes the existing features of Humvee design for quick installation onto the overhead turret with no special tools required.

In just six months, the system was transformed from conceptual design models to full-scale production—an effort that would historically take more than a year to complete for a program of this magnitude.

The kit consists of the turret shield, gun shield, and everything needed to mount the shield to a Humvee. All the elements are shipped overseas as a kit where they are assembled in theater.

"The O-GPK is a tremendous improvement over previous shields used in theater," said Maj. Antonio Ralph, who led the user evaluation effort for the O-GPK. "Picatinny's extensive background in weapons development allowed for proper integration of the systems that our soldiers need to fight effectively."

Early in the development cycle, four prototype systems fabricated at Picatinny were evaluated by soldiers performing live missions in Iraq.

"The feedback from soldiers in theater was critical in finalizing the design and kicking off production," said Ralph.

The ARDEC design enables the use of modern production equipment including laser cutting, robotic welding, automated forming and finishing operations, which results in virtually unprecedented production rates, said Kiel. ARDEC has fully documented the design and processing methods for each component to maximize production rates and minimize manufacturing and logistics costs.

"Advances in manufacturing science research at Picatinny have allowed us to develop affordable and efficient production processes for armor components," Kiel said. "Now that the O-GPK design is complete, the goal is simple—to produce large numbers of kits very quickly and send these to our soldiers as soon as possible."

Rock Island Arsenal, located in Illinois, leads the production effort and will produce 7,500 kits by this July and 20,000 by 2008.

"The O-GPK has already saved lives in Iraq," Kiel said. "The engineers and scientists at Picatinny are very proud to be supporting the men and women that ensure our freedom at home."

Other recent developments by the Picatinny Force Protection Team include a new customized Special Forces Gunner Protection Kit for Humvees and the Picatinny Blast Shield, which is now being used by the Marine Corps on their Light Armored Vehicles.

Spotlight on DAU Learning Resources

DAU AND NDIA TO SPONSOR DEFENSE SYSTEMS ACQUISITION MANAGEMENT COURSE OFFERINGS FOR INDUSTRY MANAGERS

DAU and the National Defense Industrial Association will sponsor offerings of the Defense Systems Acquisition Management (DSAM) course for interested industry managers at the following locations during fiscal 2007:
- July 16-20, 2007, Red Lion Hotel on Fifth Avenue, Seattle, Wash.
- Sept. 10-14, 2007, Radisson Plaza Hotel, Minneapolis, Minn.

DSAM presents the same acquisition policy information provided to DoD students who attend the Defense Acquisition University courses for acquisition certification training. It is designed to meet the needs of defense industry acquisition managers in today's dynamic environment, providing the latest information related to:
- Defense acquisition policy for weapons and information technology systems, including discussion of the DoD 5000 series (directive and instruction) and the CJCS 3170 series (instruction and manual)
- Defense transformation initiatives related to systems acquisition
- Defense acquisition procedures and processes
- The planning, programming, budgeting, and execution process and the congressional budget process
- The relationship between the determination of military capability needs, resource allocation, science and technology activities, and acquisition programs.

For further information see "Courses Offered" under "Meetings and Events" at <http://www.ndia.org>. Industry students contact Phyllis Edmonson at 703-247-2577 or e-mail pedmonson@ndia.org. A limited number of experienced government students may be selected to attend each offering. Government students must first contact Bruce Moler at 703-805-5257, or e-mail bruce.moler@dau.mil prior to registering with NDIA.

DEFENSE ACQUISITION UNIVERSITY UPDATE ON SPRDE SYSTEMS ENGINEERING CAREER PATH

On pages 53-54 of the March-April 2007 issue of *Defense AT&L*, the article entitled "Upcoming SPRDE-SE Certification Changes" described several changes to the DoD Systems Planning, Research, Development, and Engineering Systems Engineering career path. In the intervening time, there has been further refinement of the changes.

Effective Oct. 1, 2007, the SPRDE career field will have an additional path: SPRDE-Program Systems Engineer (SPRDE-PSE). The new SPRDE-PSE career path will be targeted at systems engineers fulfilling leadership roles on acquisition programs and will carry with it increased education and training and experience standards to meet certification requirements. The existing SPRDE-Systems Engineering (SPRDE-SE) career path remains unchanged and is intended for all other systems engineering professionals. Like SPRDE-PSE, however, SPRDE-SE will incorporate new Defense Acquisition University systems engineering courses to fulfill the education and training certification requirements at all three levels. Specific certification requirements for both tracks are detailed below.

For SPRDE-SE, Level I certification now requires, in addition to the core ACQ 101 course, completion of the new online SYS 101 course "Fundamentals of SPRDE." Level II now requires, along with ACQ 201 (A & B), the completion of the new online continuous learning module CLE 003 "Technical Reviews"; completion of the new online SYS 202 course "Intermediate SPRDE, Part I"; and completion of the new classroom SYS 203 course "Intermediate SPRDE, Part II." Level III now requires the online module CLL 008, "Designing for Supportability in DoD Systems," and the new classroom SYS 302 course, "Technical Leadership in Systems Engineering." The experience requirements for the three levels remain one, two, and four years, respectively.

The new SPRDE-PSE career path will require the same courses as SPRDE-SE at each level but will have additional certification training requirements. Level I will require the completion of two additional Level 100 courses, which can be taken from a variety of disciplines. Level II will require the completion of LOG 204 "Configuration Management," as well as one additional 100 or 200 level course. Level III will require two additional 200 or 300 level courses. The new SPRDE-PSE career path certifications will also require more years of experience: Level I—two years; Level II—four years; and Level III—eight years.

The new certification requirements for SPRDE-PSE will not be effective until Oct. 1, 2007, even though the new

SYS courses referenced above are now being offered in place of the previous SYS courses. These changes and additional details will be officially announced and maintained in the online Defense Acquisition University catalog at: < www.dau.mil/catalog/default.aspx >, no later than the Oct. 1 implementation date.

DEFENSE ACQUISITION UNIVERSITY (MARCH 26, 2007)
DAU MIDWEST REGION PARTNERS WITH INDIANA WESLEYAN UNIVERSITY

Travis Stewart, dean, Defense Acquisition University (DAU) Midwest Region in Kettering, Ohio, and Dr. Sharon Drury, dean of College of Adult and Professional Studies, Indiana Wesleyan University (IWU), signed a Strategic Partnership Agreement on March 23, 2007. Under the terms of the Strategic Partnership Agreement, the Defense Acquisition University and Indiana Wesleyan University's College of Adult and Professional Studies agree to work collaboratively in order to provide educational opportunities for the currently enrolled and potential students of each institution.

The Midwest Region has a significant number of acquisition, technology and logistics workforce personnel located in Michigan, Ohio, Kentucky, Illinois, and Indiana where IWU Education Centers are located. These individuals will find this Strategic Partnership Agreement very beneficial to assist with their ongoing educational and training requirements.

Indiana Wesleyan University's main campus is located in Marion, Indiana, midway between Indianapolis and Fort Wayne, along I-69. Established in 1920, this 300-acre campus is where 2,800 students attend IWU's traditional four-year liberal arts college and residential graduate school.

In 1985, IWU began offering programs uniquely designed for working adults. It soon became evident that IWU's combination of conveniently scheduled classes and adult-friendly services were in high demand. Since 1987, IWU's College of Adult & Professional Studies has established seven Education Centers across Indiana. Recently IWU has grown beyond Indiana and has established Education Centers in Ohio and Kentucky. There is an IWU Education Center located in Dayton, Ohio.

For adults across Indiana and living in Michigan, Ohio, Kentucky, and Illinois near the Indiana border, IWU has brought its adult degree programs into their local communities. IWU has held classes in more than 90 locations across Indiana. Wherever there are 15 to 20 adults seeking the same degree, IWU will find a meeting place in their community and bring the textbooks, course materials, and teachers to them for the duration of their program.

DAU Midwest Region, Kettering, Ohio, serves the 12 surrounding Midwest states and has a number of Strategic Partnership Agreements within the area's academic communities. DAU Midwest has made Strategic Partnership Agreements with the following institutions: Bellevue University, Central Michigan University, Cuyahoga Community College, DeVry University, Eastern Michigan University, Lawrence Technological University, National-Lewis University, Park University, Sinclair Community College, Webster University, Wilberforce University, Wright State University, University of Dayton, and University of Missouri-Rolla.

For further information, contact: Bernadette M. Crumb at bernadette.crumb@dau.mil.

DEFENSE ACQUISITION UNIVERSITY CONTINUOUS LEARNING CENTER

The DAU Continuous Learning Center at < http://clc.dau.mil/ > is a Department of Defense resource dedicated to the delivery of continuous learning opportunities supporting the acquisition, technology, and logistics workforce. To fulfill the DoD AT&L requirement for obtaining 80 continuous learning points every two years, the DAU Continuous Learning Center offers a wide variety of continuous learning modules, varying from one to 12 hours in length, primarily in the following areas:
- Acquisition Management
- Business
- Contracting
- Engineering and Technology
- Harvard ManageMentor Plus Topics
- Logistics
- Program Management

MANDATORY CONTINUOUS LEARNING MODULE FOR CONTRACTING PERSONNEL IN ACQUISITION POSITIONS

On Dec. 29, 2006, Defense Procurement and Acquisition Policy Director Shay Assad directed that all contracting personnel serving in acquisition positions complete "Contract Format and Structure for the DoD e-Business Environment." This continuous learning module is offered by the Defense Acquisition University at < http://clc.dau.mil > . Assad's memorandum also requested that the heads of the DoD Components, acting

through their Component Acquisition Executives, incorporate this training into their component acquisition career development programs for current employees and all new entrants into the Contracting career field of the defense acquisition workforce. Review the memorandum at < http://www.acq.osd.mil/dpap/policy/policyvault/20062098DPAP.pdf >.

DEFENSE ACQUISITION UNIVERSITY 2007 CATALOG

The Defense Acquisition University 2007 Catalog has been posted online at < http://www.dau.mil/catalog/default.aspx >. You may request a hard copy from the DAU Student Services Office at studentservices@dau.mil. Information in the hard copy catalog is current as of Oct. 1, 2006. The online catalog is updated periodically throughout the training year, and new CDs are produced with each update. Currency of information contained in hard copies and CDs should always be confirmed on the catalog Web site shown above.

NEW RISK MANAGEMENT GUIDE

An all-new and improved version of the *Risk Management Guide for DoD Acquisition* (6th ed, version 1.0) is now available on the Web. This streamlined edition reflects lessons learned on the application of risk management on past programs and presents concepts and ideas that encourage the use of risk-based management practices that all programs should find useful. The new guide places emphasis on:
- The role and management of future root causes
- Distinguishing between risk management and issue management
- Tying risk likelihood to the root cause rather than the consequence,
- Tracking the status of risk mitigation implementation versus risk tracking
- Event-driven technical reviews to help identify risk areas and assess the effectiveness of ongoing risk mitigation efforts.

With all the high-level emphasis on reducing risk in programs to help ensure program cost, schedule, and performance objectives are achieved at every stage in the life cycle, this guide serves as a great communication tool for all stakeholders on the process for uncovering, determining the scope of, and managing program uncertainties. View the guide at < https://acc.dau.mil/rm > or < http://www.acq.osd.mil/se/publications.htm >

Tips for Authors

1 Look at back issues of the magazine. If we printed an article on a particular topic a couple of issues ago, we're unlikely to print another for a while—unless it offers brand new information or a different point of view.

2 We look on articles much more favorably if they follow our author guidelines on format, length, and presentation. You'll find them at < www.dau.mil/pubs/dam/DAT&L%20author%20guidelines.pdf >.

3 Number the pages in your manuscript and put your name on every page. It makes our life so much easier if we happen to drop a stack of papers and your article's among them.

4 Do avoid acronyms as far as possible, but if you must use them, define them—every single one, however obvious you think it is. We get testy if we have to keep going to acronymfinder.com, especially when we discover 10 equally applicable possibilities for one acronym.

5 Fax the *Certification as a Work of the U.S. Government* form when you e-mail your article because we can't review your manuscript until we have the release. Download it at < www.dau.mil/pubs/dam/DAT&L%20certification.pdf >. Please don't make us chase you down for it. And please fill it out completely, even if you've written for us before.

6 We'll acknowledge receipt of your submission within three or four days and e-mail you a publication decision in four to five weeks. No need to remind us. We really will. Scout's honor.

Career Development

NEW BOOK ON MILITARY PROGRAM MANAGEMENT HIGHLIGHTS NAVAL POSTGRADUATE SCHOOL FACULTY EXPERTISE

Barbara Honegger

World-class Naval Postgraduate School faculty members have authored more than half the articles in the only book on best practices and lessons learned in U.S. defense program management.

U.S. Military Program Management: Lessons Learned and Best Practices, co-authored by NPS Graduate School of Business and Public Policy (GSBPP) lecturer and retired Air Force Lt. Col. Rene Rendon, covers all aspects of Army, Navy, and Air Force program management from both the government and industry contractor perspectives, including specific recommendations for future improvements. The book was published in early 2007 by Management Concepts, a private corporation that trains management professionals and publishes articles and textbooks in the field.

"The U.S. Department of Defense and related defense industries develop and operate some of the most complex and expensive systems ever created, which present unique challenges that are systematically and exhaustively addressed in the book," said Rendon, who served for more than 22 years as an acquisitions contracting officer for the Air Force. "There is simply no other book on military program management based on acquisition research written by experienced military acquisition and contract management practitioners.

"We wanted the book to be the most current and most defense-relevant, which is why so many of the chapters are written by NPS faculty members," Rendon explained. "Where else can you find retired military acquisition practitioners conducting defense-relevant, defense-focused acquisition research but at the Naval Postgraduate School Graduate School of Business and Public Policy?"

While in the Air Force, Rendon was an acquisitions contracting officer for such high-profile programs as the Peacekeeper ICBM, the F-22 Advanced Tactical Fighter, and the Evolved Expendable Launch Vehicle. He also conducted research for the Office of the Under Secretary of Defense (Acquisition, Technology and Logistics) and the Navy.

Lecturer and retired Air Force Col. Rene Rendon of the Naval Postgraduate School Graduate School of Business and Public Policy (GSBPP) is principal co-author of the only book on best practices and lessons learned in U.S. military program management, *U.S. Military Program Management: Lessons Learned and Best Practices*. More than half of the chapters are written by GSBPP faculty members, who are experienced military acquisition and contract management practitioners.

U.S. Navy photo by Javier Chagoya.

Several NPS faculty had a hand in this endeavor. "Our team of professors has produced a terrific book that reflects the great collaborative strength and depth of scholarship that makes the NPS Graduate School of Business and Public Policy a world leader," said GSBPP Dean Robert Beck.

"The whole idea of the NPS Acquisition Research Program is to get the great work we're doing out to the entire school and the world by encouraging the faculty to publish, and this book does that in a superb way," said NPS Acquisition Chair retired Rear Adm. Jim Greene. "It captures and synthesizes a lot of the key research that's been done at the Naval Postgraduate School over the last few years in the area of DoD acquisition management and program management and makes it available in one place. The book is an indispensable resource for everyone in the defense industry and a perfect example of the synergy that only NPS can provide."

The other NPS faculty contributors to the book are GSBPP Wagner Professor of Public Management Lawrence Jones; Professor of Public Budgeting Jerry McCaffery; senior lecturers and retired Army Cols. John Dillard, David Matthews and Michael Boudreau; and senior lecturer and retired Army Lt. Col. Brad Naegle.

"It's great that the outstanding research NPS acquisition and contract management faculty are doing is getting broader exposure and visibility," Rendon said.

Rendon's principal co-author on the book is Gregory A. Garrett, a highly decorated former Air Force officer and respected defense industry leader, who is currently senior principal at Acquisitions Solutions Inc. (ASI). At ASI, Garrett leads the consulting engagements for all U.S. federal government civilian agencies, including the U.S. Departments of State, Veterans Affairs, Commerce, Agriculture, Treasury, Energy, and NASA.

For more information about the Naval Postgraduate School Acquisition Research Program, go to < www. acquisitionresearch.org >. The program held its 4th annual Acquisition Research Symposium May 16–17 in Seaside, Calif., on the topic "Creating Synergy for Informed Change." Keynote speakers were Delores Etter, assistant secretary of the Navy (Research, Development and Acquisition); Shay Assad, director, Defense Procurement and Acquisition Policy, Office of the Under Secretary of Defense (Acquisition, Technology and Logistics); and Dr. Jacques Gansler, former under secretary of defense (acquisition, technology and logistics). For more information on the annual symposium, go to < www. researchsymposium.org >.

Honegger is as senior military affairs journalist at the Naval Postgraduate School.

AIR UNIVERSITY PUBLIC AFFAIRS (MARCH 30, 2007)
AIR COMMAND AND STAFF COLLEGE OFFERS ONLINE MASTER'S DEGREE
Christine Harrison

MAXWELL AIR FORCE BASE, Ala.—Air University's Air Command and Staff College begins offering an online master's degree program in June. For the first time ever, eligible officers will be able to enroll in an educational program that simultaneously fulfills Joint Professional Military Education and Air Force Intermediate Developmental Education requirements while allowing them to earn an accredited master's degree online.

"This links the master's degree to deliberate force development," said Col. James Moschgat, vice commandant of ACSC.

This chief of staff initiative is designed to boost "intellectual throw weight" within the Air Force. Students completing the program earn a master's degree in military operational art and science. This is the same degree now earned by students attending ACSC in-residence.

"The master's program is a demanding one [and] will require significant investment in time and effort by the military member," said Moschgat. "However, [it allows] the member to budget his or her time around a work and family schedule as opposed to what might be done in a master's course in the evening."

The online program consists of 11 eight-week courses — a total of 33 semester hours—covering topics such as contemporary Air Force operations, national security, leadership, and joint warfare challenges and opportunities.

Because of the anticipated level of work required, students beginning the program may take only one course per term; however, they may be approved to take two courses per term after they have successfully completed their first four courses.

Each course requires from 10 to 15 hours of work per week.

A student working steadily through the program can earn his or her master's degree in less than 24 months. Students have the ability to schedule courses around deployments.

"If you complete three terms then you deploy for three months, you will roll right back into the next term," said Dr. Kessler, dean of Distance Learning at ACSC. "It is not a lock-step degree program. We provide [students] the flexibility to take the course they want, at the time they want, and to do this at a pace that supports their ops tempo."

Students will interact with faculty and fellow students in an asynchronous online seminar environment.

"There is not a set time when everyone is going to be online at the same time because we're going to be dealing with troops [and faculty] in multiple time zones," Dr. Kessler explained.

In addition to the online collaboration, students must complete written assignments, exercises, and essay exams. The program also requires students to complete a research project on a topic of concern for today's warfighters.

Admission to the program is not a competitive process, but is limited due to the number of online instructors available, Kessler said. In order to manage demand, the school employs an incremental admissions process.

Initially, the program will have a capacity of 200 to 500 students and only be open to active-duty Air Force majors and major-selects who do not currently possess a master's degree or have not yet completed intermediate developmental education.

Dr. Kessler said he anticipates the program will open to Air National Guard and Air Force Reservists beginning in August 2007. As resources allow, the program will open to Air Force civilians in major-equivalent positions, sister service majors and major-selects, as well as DoD civilians and other eligible federal agency civilians in major-equivalent positions.

Once the program opens, eligible students can enter the program during any of the six terms offered yearly. There is no tuition cost associated with the master's degree; however, students will be responsible for purchasing any books they will need. This expense is estimated to range from $50 to $75 for each course. There is no active-duty service commitment associated with the program.

"This really provides our mid-career officers with options they have not had previously," Moschgat said. "Distance learning technology has matured to the point that we believe we can offer them a robust course of study—a high-fidelity degree—within the time constraints officers face in today's high-tempo operational environment."

For more information about the ACSC online master's degree program and how to apply, visit the ACSC Web site at < www.au.af.mil/au/dlmasters.asp >.

Harrison is with Air University Public Affairs.

AIR FORCE PRINT NEWS
(MARCH 29, 2007)
FM CENTER OF EXPERTISE CELEBRATES FIRST ANNIVERSARY

WASHINGTON—Last April, after 15 months of studies, surveys, and hard work, the Air Force Financial Management Center of Expertise, or FM CoE, opened its doors and introduced a single stopping point for cost analysis decision support for commanders and senior leaders.

"The mission of the FM CoE is to provide timely, on-demand, specialized financial analysis for decision support to commanders at the installation level and to senior leaders at major commands," said Lt. Col. Robert Bickel, center director.

"With fewer than a dozen people, we have completed a number of diverse, detailed studies on joint family housing, facility comparisons, runway closure cost modeling, disaster pre- and post-strike modeling, and cost estimates for conversion and transfer of an active base, among others," Bickel said.

Though the unit is manned at less than 25 percent of its authorized level, its work has already saved the Air Force nearly $2 million over the past year. The savings will continue to climb, as there are more than 20 projects awaiting action.

The center was created in response to the current and proposed Air Force personnel and budget reductions. A major component of the financial management transformation effort, the CoE is essential to the transition from a transaction-based financial management career field to one of a major decision support provider.

"The center is one example of a larger FM-wide transformation," said Roger Bick, director, Air Force Financial Management Strategic Planning and Transformation Program Management Office. "We're moving FM from a career field that waited on customers with pay or travel (requirements) to a career field that uses the unique skills and capabilities of financial analysis to help commanders and senior leaders make wise decisions on how to spend taxpayers' money."

The CoE provides a full spectrum of services, ranging from advice and training to content reviews; benchmarking and best practices; developing standard analysis tools and templates; and providing onsite consultants who can assist with data collection and validation, perform the analysis, and generate a final report.

Best of all, these services are provided at no cost to the customer.

For more information on the Center of Expertise, contact the CoE at fm.coe@buckley.af.mil or on the Web at < https://www.saffm.hq.af.mil/coe/ >.

DEFENSE ACQUISITION CAREER OPPORTUNITIES

The Defense Procurement and Acquisition Policy (DPAP) Office encourages civil servants and military professionals to pursue acquisition career paths in support of federal and defense agencies. We offer opportunities for continuing education and career development in acquisition including training through the Defense Acquisition University, professional conferences and travel both domestic and abroad.

Affiliation in the Armed Services is not required—there are many civilian job opportunities (as well as military) within the Department of Defense.

Intern: New to the acquisition career field; offers rapid career advancement to Journeyman level.

Journeyman: An experienced professional in the acquisition career field.
Executive/Supervisor: Senior Executive Service (SES) and Supervisory.

Acquisition skills are needed in all career paths including:
- Auditing
- Business, Cost Estimating & Financial Management

"The [Financial Management Center of Expertise] is one example of a larger FM-wide transformation ... We're moving FM from a career field that waited on customers with pay or travel [requirements] to a career field that uses the unique skills and capabilities of financial analysis to helpcommanders and senior leaders make wise decisions on how to spend taxpayers' money."

—Roger Bick
Air Force Financial Management
Strategic Planning and Transformation Program Management Office

- Contracting/Purchasing/Procurement (contracting 1102 job series)
- Facilities Engineering
- Industrial/Contract Property Management
- Information Technology
- Life Cycle Logistics
- Production, Quality & Manufacturing
- Program Management
- Systems Planning, Research, Development and Engineering—Science and Technology Manager
- Systems Planning, Research, Development and Engineering—Systems Engineering
- Test & Evaluation

For more information and links to Defense Acquisition University resources, visit the director, Defense Procurement and Acquisition Policy Web site at < http://www.acq.osd.mil/dpap/career/index.htm > .

AIR FORCE PRINT NEWS
(MARCH 13, 2007)
AFIT OFFERS DISTANCE LEARNING DEGREE PROGRAM

WRIGHT-PATTERSON AIR FORCE BASE, Ohio —The Air Force Institute of Technology recently achieved two milestones that will help the school move forward into the 21st century and serve the Air Force with greater responsiveness.

This month, AFIT began offering its first distance learning graduate degree program. AFIT has been using DL technologies to offer graduate certificate programs as well as professional continuing education for some time. But with this pilot program in Systems Engineering, it is now possible for military members, DoD civilians, and government contractors across the country to earn a master's degree from AFIT without moving to Ohio or leaving their current assignments.

"Students interested in getting a master's degree in Systems Engineering can do so in any number of ways," said Dr. David Jacques, the curriculum chair for AFIT's Systems Engineering Program. "What makes our program so unique is that it is geared toward the DoD employee. Our faculty uses its extensive military background to create a defense-centered educational experience."

"During their research, our students are encouraged to tackle real-world systems problems found in their workplace," said George Mooney, director of AFIT's Center for Systems Engineering. "That way, students can make strides toward obtaining their master's degree while helping the Air Force—more specifically, while helping the student's own organization or company."

"Students who enroll in our master's program may get transferred to another assignment, but they can still keep working on their degree," said Lt. Col. Brian Hermann, an AFIT DL instructor. "I think that's a huge benefit for the military student."

The second AFIT milestone was the recent opening of the graduate school's brand-new DL studio suite. After an interior construction and renovation project, the school installed new equipment in the studio suite to facilitate an expanding distance learning outreach.

"Our goal was to create a flexible toolbox that faculty members could use to create streamable content, as well as interact in real-time with the distance learning student," said John Reisner, director of AFIT's Office of Extension Services. Previously, the school relied on videoteleconferences to deliver educational content to the remote student.

"We wanted to use technologies that were more versatile and more scalable without sacrificing quality," said Dr. Marlin Thomas, dean of AFIT's Graduate School of Engineering and Management. "Our new studios have empowered the faculty to do that."

With a newly hired staff, the Graduate School's Extension Services office is poised to help the school realize its goal of becoming an increasingly important educational resource for agencies and organizations across the Air Force and DoD. In January 2007, AFIT's Center for Space Studies and Research began offering the Graduate School's second certificate program fully available online: the Graduate Space Systems Certificate. This recent growth of DL educational opportunities has meant a spike in the numbers of students taking advantage of these programs, and the school is optimistic that this is only the beginning.

Prospective students interested in learning more about DL programs offered by AFIT's Graduate School of Engineering and Management can visit AFIT's Office of Extension Services' Web site at < www.afit.edu/en/dl > .

AMERICAN FORCES PRESS SERVICE
(APRIL 27, 2007)
NEW JKO PORTAL TO OFFER JOINT ONLINE TRAINING
Donna Miles

WASHINGTON—A new system unveiled April 27 is designed to better prepare servicemembers to operate with other Services, government agencies, foreign militaries, and non-governmental organizations while reducing the time they spend away from home or their units for military classes.

David S.C. Chu, under secretary of defense for personnel and readiness, joined Air Force Gen. Lance L. Smith, commander of U.S. Joint Forces Command, at the general's headquarters in Suffolk, Va., to officially cut the ribbon on the new Joint Knowledge Online, or JKO, enterprise portal system.

The system will go live worldwide April 30 to deliver coursework and learning tools for people involved in integrated, joint operations, Smith said.

Chu called JKO a major step in the Defense Department's training transformation effort to improve how it prepares its people for their missions around the world. It recognizes that operations now and in the future will be not just joint, but also integrated, meaning they include elements of other U.S. government agencies, foreign militaries, and non-governmental organizations, he said.

"For our forces to be effective in that world, they have to prepare with a joint perspective from the start," he said.

JKO's distance-learning classes will give users a chance to learn or brush up on skills they need to operate in a challenging and constantly changing environment, Chu said.

Smith said JKO's unveiling represents a big step toward, improving individual training that helps prepare troops to go to war. "It makes sure that when our soldiers and sailors and airmen and Marines are out there in the field having to fight a war, those over them, especially in the joint arena, are prepared to make the kind of decisions that need to be made so they can go do their mission, and know that they are trained to do it," Smith said. "So it fills a very important capability for us."

JKO delivers this critical training with consideration to the heavy demands already being placed on their personal time, he said. "In today's environment, where the operations tempo is so high ... this will allow soldiers, sailors, airmen, and Marines to be able to train in many areas at their own pace, in their own houses or their own workspace without having to take more time away from their family and their units," he said.

For example, one of the portal's first offerings, the Joint Individual Augmentee Module, will replace a week-long resident course that was offered in Suffolk, Va. Rather than receiving orders to attend the resident school, students will receive orders directing them to a specific Web site and telling them how to access the coursework.

Other offerings will shorten resident course time by giving students the basics online before they show up for the first day of class.

With unit rotations sometimes giving troops only a year of "dwell time" at home between deploying, "every day counts," Smith said. "And I think this will go a long way toward easing their training scheme as they prepare to go to Iraq or Afghanistan or whatever else it is that they are going to do."

> "[Joint Knowledge Online] makes sure that when our soldiers and sailors and airmen and Marines are out there in the field having to fight a war, those over them, especially in the joint arena, are prepared to make the kind of decisions that need to be made so they can go do their mission and know that they are trained to do it ... so it fills a very important capability for us."
>
> —Gen. Lance L. Smith, USAF
> Commander, U.S. Forces Command

A particularly unique feature of the new portal is that it's open not just to servicemembers, but also to others who will work alongside them in integrated operations. Smith said that giving these groups the opportunity to train for missions they'll conduct together, such as running a provincial reconstruction team, will put them a step ahead when they hit the ground.

"We can make sure we show up to the PRTs or some other function we are doing together at least with the basic knowledge that we can share and talk about," he said.

Chu praised the portal's ability to bring together players in different locations and allow them to interact in virtual exercises. "It allows us to ... rehearse for missions with real incidents that literally replicate what they are going to see on the ground," Chu said.

JKO complements and provides links to Service-operated portals, including Army Knowledge Online, Navy Knowledge Online, Air Force Portal, and MarineNet. These portals will continue to provide Service-specific training.

Miles is with American Forces Press Service.

Conferences, Workshops & Symposia

ACQUISITION OF SERVICES IN SPOTLIGHT AT DAU ACQUISITION COMMUNITY CONFERENCE

Bill Bahnmaier

On April 17, the Defense Acquisition University Alumni Association successfully sponsored the DAU-hosted 24th DAU Acquisition Community Conference/Symposium. The theme of the conference was "Trends in the Acquisition and Program Management of Services in DoD." The theme served to energize both the presenters and the attendees. During introductory remarks, Bill Bahnmaier, the DAU Alumni Association president, set aside a moment of silence for the troops our nation has lost in Iraq and Afghanistan, and for the students and faculty at Virginia Tech who lost their lives in a terrible tragedy on April 16.

Ahern and Walker Address Delegates

The keynote speech was delivered by Dave Ahern, director of Portfolio Systems Acquisition, in the Office of the Under Secretary of Defense for Acquisition, Technology and Logistics. Ahern offered first-hand perspectives—gained from his tenure as a major system program manager—on what needs to be done to improve services acquisition.

He was followed by Service Acquisition Executives, industry, and congressional panels, plus two break-out tracks covering the latest services policy and guidance.

Later in the day the conference attendees heard from Comptroller General of the United States David Walker, who gave his perspectives on the acquisition of services in DoD. The main focus of speakers and panelists centered on writing requests for proposals that made sense to industry, including good statements of work and understandable sections "L" and "M."

Beyond Contracting

Although contracting processes were discussed in depth, the conference looked beyond the contracting aspect of acquiring services, covering aspects of acquisition ranging from systems engineering to program management. It examined tools and techniques that are critical to the program management professional who acquires services for DoD and proffered lessons learned for a successful acquisition. Copies of the presentations provided during the conference can be found on the Acquisition
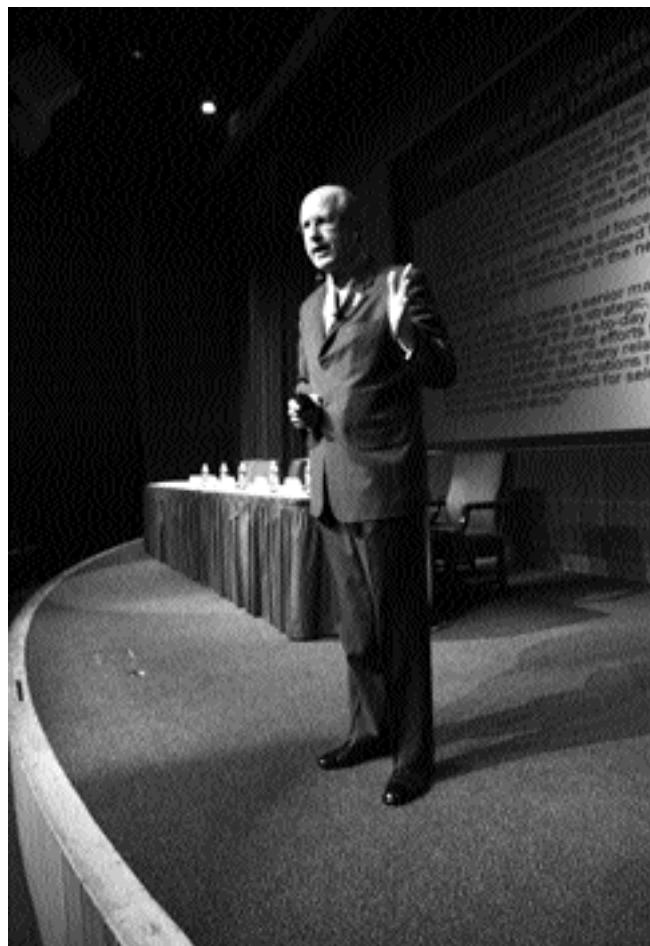
United States Comptroller General David Walker addresses attendees at the 24th DAU Acquisition Community Conference/Symposium, hosted by the Defense Acquisition University Alumni Association at Fort Belvoir, Va.

Photograph by SSGT Mason Lowery, USA

Community Connection Web site at < https://acc. dau.mil/CommunityBrowser.aspx?id = 145472 >.

Bahnmaier presented the "State of DAUAA" at the annual DAU Alumni Association business meeting. His presentation can be found on the DAUAA Web site at < http://www.dauaa.org/ >. Part of the presentation covers a new initiative, the DAU Research Paper Competi-

tion, led by DAU Director of Research Dr. Paul Alfieri. The plan envisions a research paper competition that will generate more interest and participation in the *Defense Acquisition Review Journal*. The goal of this competition is to increase knowledge of innovative acquisition processes for use by the acquisition workforce. The Alumni Association is prepared to make significant outlays in prize money to the winners of the competition.

Acker Award, Hall of Fame Awards

At the evening banquet, the DAUAA David Acker Award for Skill in Communication was awarded to Under Secretary of Defense for Acquisition, Technology and Logistics Ken Krieg, based on Krieg's outstanding support of defense acquisition in general and DAU in particular, through the *Defense AT&L eLetter* and as a guest practitioner at DAU executive training courses.

The DAU Hall of Fame awards were also presented as part of the banquet event. The recipients were Secretary of the Air Force Mike Wynne; retired Army Brig. Gen. Ed Hirsch, a former dean, provost, and current professor emeritus at DAU; Norm McDaniel, a former professor, department chair, and associate dean at DAU; and Joyce Valloza, the former head of protocol for many years at the Defense Systems Management College and DAU.

Overall, the conference attracted 567 participants who experienced an important learning event. Four hundred and thirty of the participants were in Scott Hall on the DAU Capital/Northeast Region campus, while the other 137 were at 15 video teleconference sites spread across the DAU regional campuses coast to coast. In addition to the VTC sites, the conference pioneered the use of communications technology when a "Go-To-Meeting" link was established that allowed VTC remote viewers to view each slide individually and provide questions to the speaker or panelist in Scott Hall.

The days preceding the conference were tumultuous, with a major Nor'easter hitting the Fort Belvoir area, a loss of electrical power at DAU the day before the conference, and the tragic events at Virginia Tech. Nevertheless, the Defense Acquisition University Alumni Association, despite national tragedy, power failure, and a major storm threat, continued its 24-year history of bringing together the best and brightest from all walks of the defense acquisition community for the benefit and advancement of the entire government-defense industry acquisition workforce.

Bahnmaier is the DAU Alumni Association president.

PRECISION STRIKE SUMMER FORUM

The Precision Strike Association will hold a summer forum July 10-11, 2007, at the Virginia Beach Resort & Conference Center, 2800 Shore Drive, Virginia Beach, Va. The summer forum theme will be "Joint Perspectives on Precision Engagement." Register for the forum online at < http://www.ndia.org/ >. Click on "Schedule of Events."

STANDARDIZATION WITHIN NATO SCHEDULED FOR JULY 2007

Latasha R. Beckman

The International Cooperation Office, Defense Standardization Program Office, and North Atlantic Treaty Organization Standardization Agency will host the first Standardization within NATO Course in the United States July 10–12, 2007, in Chantilly, Va.

This course is an abridged version of pre-existing NATO standardization training, but tailored to meet the educational needs of a U.S. audience. It will consist of lectures and classroom exercises to provide training to military and DoD civilian personnel who require a fundamental knowledge of standardization and interoperability within NATO. Non-DoD federal government employees and defense contractors are eligible for this course depending on space availability.

Instruction will cover the structure and principles of the NATO standardization, Standardization Agreements, use of civil standards, and U.S. participation in the standardization process. Also, the responsibilities of Military Departments and Defense Agencies in the oversight of standardization activities will be addressed.

There is no charge for this course; but the attendee's organization is responsible for travel expenses. If you're interested in attending this course, please contact Latasha Beckman at 703-767-6872 or latasha.beckman@dla.mil.

Beckman is a general engineer with the Defense Standardization Program Office.

MISSILE DEFENSE AGENCY (MDA) SMALL BUSINESS INNOVATION RESEARCH (SBIR) INDUSTRY DAY

The Missile Defense Agency will sponsor a Small Business Innovation Research (SBIR) Industry Day, July 25–26, 2007, at the Sheraton National Hotel in Arlington, Va. The Industry Day will focus on enhancing the Small Business Innovation Research (SBIR) Process for the Missile Defense Agency (MDA) and the Small Busi-

ness Community. Research Area Leads will give briefings on the following technology areas:

- Space Technology
- Interceptor Technology
- Modeling & Simulation
- Manufacturing Technology
- Discrimination
- Radar System Technology
- Information Assurance
- Integration
- Safety/Insensitive Munitions
- Airborne Component Technology.

Small Businesses will also have the opportunity to sign up for one-on-one sessions with key MDA technical representatives. The point of contact is Dani Rovenger, drovenger@ndia.org or call 703-247-2540.

2007 NAVAL SCIENCE & TECHNOLOGY INDUSTRY PARTNERSHIP CONFERENCE

The 2007 Naval Science & Technology Industry Partnership Conference will be held July 30 through Aug. 2, 2007, at the Marriott Wardman Park Hotel in Washington, D.C. The agenda and conference information will be posted online as they become available at <http://www.ndia.org>; click on "Schedule of Events." For more information, contact Luellen Hoffman at lhoffman@ndia.org or phone 703-247-9460.

SOLE 2007

The International Society of Logistics will hold its 42nd Annual International Logistics Conference and Exhibition Aug. 21–23, 2007, at the Omni William Penn Hotel, in Pittsburgh, Pa. This year's theme will be "Logistics: The Keystone of Mission Success." Check the SOLE 2007 Web site at <http://www.sole.org/conference.asp> for future updates and registration.

LAND & MARITIME SUPPLY CHAINS BUSINESS CONFERENCE & EXHIBITION

The 2007 Land & Maritime Supply Chains Business Conference & Exhibition will be held Aug. 27–29, 2007, at the Hyatt Regency Columbus at the Greater Columbus Convention Center in Columbus, Ohio. The agenda and conference information will be posted online as they become available at <http://www.ndia.org>; click on "Schedule of Events." For more information, contact Meredith Geary at mgeary@ndia.org or phone 703-247-9476.

UNIQUE IDENTIFICATION (UID) FORUM

All DoD serially managed assets must be registered in the Item Unique Identification Registry by September 2007. If you are a DoD contractor or are a military program manager, you are affected by this mandatory policy. This policy impacts all levels of supply, including small- to mid-sized businesses and all acquisition programs.

The Department of Defense is sponsoring a UID Forum, Sept. 12–13, in Atlanta, Ga. This forum is designed to provide practical guidance to help military program managers and DoD contractors—particularly small- to mid-sized contractors and all acquisition program managers—achieve successful UID implementation as required by DoD policy memoranda and the issuance of the final UID Defense Acquisition Regulation Supplement rule dated April 22, 2005. UID Forum participants will learn how to achieve successful implementation through sessions conducted by Department policy makers on:

- Military Standard 130 (MILSTD 130)
- Wide Area Work Flow (WAWF)
- Semantics and Syntax of Data
- Unique Item Identifiers (UII)
- Marking Guidelines
- Defense Federal Acquisition Regulation Supplement (DFARS).

Register for the UID Forum at <http://www.uidforum.com>.

INSENSITIVE MUNITIONS/ENERGETIC MATERIAL SYMPOSIUM

The 2007 Insensitive Munitions/Energetic Material Symposium will be held Oct. 15–18, 2007, at the Doral Golf Resort & Spa in Miami, Fla. Conference information will be posted online as it becomes available at <http://www.ndia.org>; click on "Schedule of Events." For more information, contact Veronica Allen at vallen@ndia.org or phone 703-247-9478.

10TH ANNUAL SYSTEMS ENGINEERING CONFERENCE

The 10th Annual Systems Engineering Conference will be held Oct. 22–25, 2007, at the Hyatt Regency Islandia Hotel and Marina in San Diego, Calif. The primary objective of the conference is to provide insight, information, and lessons learned into how DoD can improve the overall performance of defense programs through a better, more focused application of systems engineering that will lead to more capable, in-

teroperable, and supportable weapon systems for the warfighter, with reduced total ownership costs.

The agenda and conference information will be posted online as they become available at <http://www.ndia. org>; click on "Schedule of Events." For more information, contact Britt Bommelje at bbommelje@ndia.org or call 703-247-2587.

PRECISION STRIKE ASSOCIATION 17TH ANNUAL PRECISION STRIKE TECHNOLOGY SYMPOSIUM

The Precision Strike Association will sponsor the 17th Annual Precision Strike Technology Symposium Oct. 23–25, 2007, at Johns Hopkins University Applied Physics Laboratory-Kossiakoff Conference Center in Laurel, Md. The 2007 theme is *Required Precision Strike Capabilities and Technologies for the Long War*.

Effective precision strike demands a timely and effective kill chain to some of the most important targets, which are, in Dr. Paul Wolfowitz' words, "the ones that move around, staying put for only short periods." This year's event continues to provide a forum for exchanging insights, experiences, and ideas regarding Joint and Coalition Precision Strike Technologies to improve the kill chain. It also uniquely offers participants the opportunity to present to one's peers the latest and cutting-edge research and thinking in areas of strike weapons, desired weapons effects, targeting, and required C4ISR. Surveys from past symposia reflect that updates on current and kill chain technologies, concepts, capabilities, and processes for both near and future planning and operations are exactly what symposium participants desire.

Monitor the Precision Strike Association Web site <http:// www.precisionstrike.org/events.htm> for future updates and registration information.

45TH ANNUAL TARGETS, UAVS & RANGE OPERATIONS SYMPOSIUM & EXHIBITION

The 45th Annual Targets, UAVs & Range Operations Symposium & Exhibition will be held Oct. 29–31, 2007, at the Hyatt Regency Islandia Hotel and Marina in San Diego, Calif. The agenda and conference information will be posted online as they become available at <http://www.ndia.org>; click on "Schedule of Events." For more information, contact Simone Baldwin at sbaldwin@ndia.org or call 703-247-2596.

DARPA ANNOUNCES THIRD GRAND CHALLENGE

The Defense Advanced Research Projects Agency (DARPA) has announced plans to hold its third Grand Challenge competition on Nov. 3, 2007. The DARPA Urban Challenge will feature autonomous ground vehicles executing simulated military supply missions safely and effectively in a mock urban area. Safe operation in traffic is essential to U.S. military plans to use autonomous ground vehicles to conduct important missions. DARPA will award prizes for the top three autonomous ground vehicles that compete in a final event where they must safely complete a 60-mile urban area course in fewer than six hours. First prize is $2 million, second prize is $500,000, and third prize is $250,000. To succeed, vehicles must autonomously obey traffic laws while merging into moving traffic, navigating traffic circles, negotiating busy intersections, and avoiding obstacles. The DARPA Grand Challenge Web site <http://www.darpa.mil/grandchallenge> is the primary resource for information about the Urban Challenge event.

Acquisition & Logistics Excellence

AIR FORCE MATERIEL COMMAND (FEB. 20, 2007)
TOOL KIT AIDS LOGISTICIANS, PROGRAM MANAGERS

Brenda Robinson • Dean DeBee

WRIGHT-PATTERSON AIR FORCE BASE, Ohio— Has this ever happened to you? An aircraft modification kit is sent to your unit. Upon receipt, you verify the kit has all the parts listed on the inventory and review the modification instructions. Satisfied, you schedule one of your multi-million dollar aircraft for incorporation of the new capability.

After you start work and make electrical wiring or structural changes that cannot be undone, you discover the modification kit is missing vital pieces that were not on the original parts listing. Your expensive aircraft is now a static display, unable to perform its mission while the agonizingly slow process of figuring out what went wrong takes place.

This scenario is one example of a product support problem. Product support is a continuous and collaborative set of activities that establish and maintain the operational capability of a system, subsystem, or major end item throughout its life cycle. It is a cradle-to-grave effort to plan, design, acquire, supply, repair, operate, and retire a warfighter capability.

In 2005, Air Force requirements to promote a better understanding spurred the creation of the Product Support Campaign, or PSC. It's a revitalization effort to improve and standardize product support throughout the Air Force. The effort was co-championed by Barbara Westgate, executive director at Headquarters Air Force Materiel Command; Blaise Durante, deputy assistant secretary for Acquisition Integration, Office of the Assistant Secretary of the Air Force for Acquisition; and Michael Aimone, assistant deputy chief of staff for Logistics, Installations, and Mission Support, Headquarters, U.S. Air Force.

As part of the PSC, focus area teams concentrated on improvement areas identified through value stream mapping that would have the greatest impact on product support. Each focus area team was comprised of multi-functional acquisition and sustainment professionals from across the Air Force dedicated to improving product support.

One such team was the Process Focus Team. It was led by Eilanna Price, chief of logistics for the 77th Aeronautical Systems Wing. Co-champions included Fran Duntz, Electronic Systems Center deputy for Acquisition at Hanscom AFB, Mass.; and Kenneth Percell, Warner Robins Air Logistics Center executive director at Robins AFB, Ga.

The culmination of this team's deliverables resulted in the Life Cycle Logistics Management Tool Kit consisting of the logistics process matrix, 31 logistics checklists, and the logistics kneepad reference. The tool kit is a helpful reference for logisticians or program managers performing logistics-related tasks during a product's life cycle.

"These new standardized processes are intended to capitalize on lessons learned and allow more efficient processes to be used in executing a strong product support program." said Price.

"The tool kit will help program and logistics managers in all program and staff offices move through the Product Support realm with greater credibility and accuracy," said Duntz. "The development of standardized processes, flow charts, and checklists simplify the tasks that need to be done in order to field and support our warfighting systems."

Maj. Gen. Art Morrill, director of logistics, HQ AFMC/A4 and Logistics Officer Association Wright Brothers Chapter Advisor, is championing these transformation efforts.

"With AFMC's growing role as a full-spectrum support command, we're absolutely committed to the deployment and institutionalization of the Life Cycle Logistics Management Tool kit and related enabling devices," the general said.

The team's tools are to be incorporated into the Expeditionary Combat Support System after completion of ongoing Logistics Enterprise Architecture certification. Additionally, the team worked with the Air Force Institute of Technology and incorporated product support process training into AFIT courses SYS 281, Air Force Acquisition and Sustainment, and SYS 400, Current Topics in Acquisition and Sustainment.

Price and her team members have also built an informational road show and will present it to AFMC product and air logistics center in February.

The team's handiwork likely will leave an indelible mark on AFMC and the Air Force.

"The AFMC vision of 'War-Winning Capabilities … On Time, On Cost' will be better served through the use of standardized processes." Duntz said. "Speed and credibility will undoubtedly improve, our people will be better able to deliver products and services with complete cradle-to-grave support planning and execution that meet today's warfighter needs."

Anyone interested in the tool kit or road show brief can find links to them in the "Products, Services, and Tools" section of the HQ AFMC/A4A Air Force Portal Web site. Public contact: < http://www.dod.mil/faq/comment. html >.

Robinson and DeBee are with the AFMC Directorate of Logistics.

DEPARTMENT OF DEFENSE NEWS RELEASE (MARCH 5, 2007)
$41.2 MILLION AWARDED TO UNIVERSITIES FOR RESEARCH EQUIPMENT

The Department of Defense today announced plans to award $41.2 million to academic institutions to support the purchase of research instrumentation under the Defense University Research Instrumentation Program (DURIP). All awards are subject to the successful completion of negotiations between DoD research offices and the academic institutions. The 199 awards to 112 academic institutions are expected to range from about $50,000 to $950,000 and average $207,000.

DURIP supports the purchase of state-of-the-art equipment that augments current university capabilities or develops new university capabilities to perform cutting-edge defense research.

DURIP meets a critical need by enabling university researchers to purchase scientific equipment costing $50,000 or more to conduct DoD-relevant research. Researchers generally have difficulty purchasing instruments costing that much under research contracts and grants.

These awards are the result of a merit competition for DURIP funding conducted by the Army Research Office,

Office of Naval Research, and Air Force Office of Scientific Research.

Each office requested proposals from university investigators working in areas of importance to DoD. This includes research related to information technology, remote sensing, propulsion, electronics and electro-optics, advanced materials, and ocean science and engineering.

In response to the requests, the research offices collectively received 780 proposals, requesting $220 million in support for research equipment.

The list of winning proposals can be viewed at < http://www.defenselink.mil/news/Mar2007/d20070305 durip.pdf >.

DEPARTMENT OF DEFENSE NEWS RELEASE (MARCH 7, 2007)
DEPARTMENT OF DEFENSE ANNOUNCES VALUE ENGINEERING ACHIEVEMENT AWARD WINNERS

Under Secretary of Defense for Acquisition, Technology, and Logistics Ken Krieg has announced the winners of the 2006 Department of Defense Value Engineering Achievement awards. Value engineering is a systematic process of function analysis identifying actions that reduce cost, increase quality, and improve mission capabilities across the entire spectrum of DoD systems, processes, and organizations.

The Department of Defense Value Engineering Program continues to be an incentive for government and our industry counterparts to improve the joint value proposition by promoting innovation and creativity. These innovative proposals seek best value solutions as part of a successful business relationship.

During fiscal 2006, 3,473 in-house value engineering proposals and contractor-initiated value engineering change proposals were accepted with projected savings/cost avoidance in excess of $1.6 billion.

The Value Engineering Awards Program is a highly visible acknowledgment of exemplary achievements and encourages additional projects to improve in-house and contractor productivity. Award winners from each DoD component were eligible for selection in the following five categories: program/project, individual, team, organization, and contractor.

Additional special awards were given to recognize innovative applications or approaches that expanded the traditional scope of value engineering use.

Awards are announced for the following individuals or teams in the categories noted:

OFFICE OF THE SECRETARY OF DEFENSE

Special: Danny Reed, Value Engineering Program management consultant, Institute for Defense Analyses

ARMY

Program/Project: Army Small Computer Program Communications-Electronics Life Cycle Management Command

Individual: Terrie Bramlett, U.S. Army Aviation and Missile Life Cycle Management Command

Team: MILCON Transformation Development Team, U.S. Army Corps of Engineers

Organization: U.S. Army Aviation and Missile Life Cycle Management Command

Contractor: GMA Cover Corp.

Contractor: Goodyear Tire and Rubber Co.

Special: U.S. Army Joint Munitions Command—VE Team

Special: Precision Fires Rocket & Missile System Project Office IPT Leads

Special: U.S. Army Corps of Engineers Louisville District

NAVY

Program/Project: ALQ-99 Band 9/10 Transmitter High Voltage Modules for EA-6B, Naval Surface Warfare Center, Crane Division

Team: AN/SQQ-32(V) Minehunting Sonar Set Hull Penetrator Cable Improvement Team, Mine Warfare Program Office, PMS495

Organization: Electro-Optic Technology Division, Naval Surface Warfare Center, Crane

Special: Rolling Airframe Missile Alteration Installation Team, Naval Surface Warfare Center, Port Hueneme Division

Special: MK54 Lightweight Torpedo Undersea Weapons Program Office, PMS 404

Special: AN/SLQ-32(V) High Voltage Power Supply Heater Voltage Control, Surface Electronics Warfare Systems Division, Crane

Team: Marine Corps—Advanced Man Portable Air Defense System, Expeditionary Warfare Systems Division, Crane

AIR FORCE

Individual: Marty Sheppard, Robins Air Force Base, Ga.

DEFENSE LOGISTICS AGENCY

Program/Project: Edwin Lilly, Reverse Engineering Project, Defense Supply Center Richmond

Individual: Jeff Culbertson, Defense Supply Center Columbus

Team: Should Cost Program Team, Defense Supply Center Richmond

Organization: Defense Supply Center Richmond

Special: Diana Cross, Defense Supply Center Columbus

Special: Defense Supply Center Columbus Value Management Office

MISSILE DEFENSE AGENCY

Program/Project: Terminal High Altitude Area Defense Project Management Office

Individual: JD Stingel, Missile Production Engineering and Manufacturing Division, Huntsville, Ala.

Team: THAAD Software Value Engineering Team Huntsville and Redstone Arsenal

Special: Nancy Sims, Terminal High Altitude Area Defense, Huntsville, Ala.

DEFENSE CONTRACT MANAGEMENT AGENCY

Contractor: Northrop Grumman Integrated Systems, El Segundo, Calif.

DEFENSE INTELLIGENCE AGENCY

Team: Trusted Wisdom Program Office

DEFENSE INFORMATION SYSTEMS AGENCY

Program/Project: Global Information Grid-Bandwidth Expansion Program Office

DEFENSE FINANCE AND ACCOUNTING SERVICE

Program/Project: Inquiry Management and Tracking System Project

Team: Defense Property Accountability System Quality Assurance Team

DEPARTMENT OF DEFENSE NEWS RELEASE (MARCH 7, 2007)
67 UNIVERSITIES SELECTED TO RECEIVE $207 MILLION IN RESEARCH FUNDING

The Department of Defense announced today 36 awards to academic institutions to perform multidisciplinary basic research totaling $19.4 million in fiscal 2007 and $207 million over five years.

Awards are subject to the successful completion of negotiations between the academic institutions and DoD research offices that will make the awards including the

Army Research Office (ARO), the Office of Naval Research (ONR), and the Air Force Office of Scientific Research (AFOSR).

The awards are the result of the fiscal 2007 competition that ARO, ONR, and AFOSR conducted under the DoD Multi-disciplinary University Research Initiative (MURI) program.

The MURI program supports multi-disciplinary research in areas of DoD relevance that intersect more than one traditional science and engineering discipline. A MURI effort typically involves a team of researchers with expertise in a variety of disciplines in order to accelerate both research progress and transition of research results to application.

Based on the proposals selected in the fiscal 2007 competition, 67 U.S. and two Canadian academic institutions are expected to participate in the 36 research efforts. Support for the two Canadian academic institutions will be provided by a Canadian research funding agency.

By supporting multi-disciplinary teams, the MURI program complements other DoD basic research programs that support traditional, single-investigator university research. Typically, MURI awards are larger and longer in duration than traditional awards.

The awards are for up to five years—a three-year base period with a two-year option contingent upon availability of appropriations and satisfactory research progress.

Consequently, MURI awards can provide greater sustained support than single-investigator awards for the education and training of students pursuing advanced degrees in science and engineering fields critical to DoD and for associated infrastructure, such as research instrumentation.

The MURI program is highly competitive. ARO, ONR, and AFOSR solicited proposals in 29 topics important to DoD and received a total of 129 proposals. The 36 proposals announced were selected for funding based on merit review by panels of experts in the pertinent science and engineering fields.

The list of projects selected for fiscal 2007 funding can be viewed at: < http://www.defenselink.mil/news/MAR 2007/d20070307muri.pdf > .

UNDER SECRETARY OF DEFENSE ACQUISITION, TECHNOLOGY AND LOGISTICS WORKFORCE DEVELOPMENT AWARD FOR 2007
AWARD ANNOUNCEMENT

Under Secretary of Defense for Acquisition, Technology and Logistics Ken Krieg recently released a memorandum announcing the 2007 Acquisition Workforce Development Award Program. In 2007 the award application process has been converted to an online submission. The online application will be available beginning June, 1 2007.

Questions regarding this award should be directed to the coordinator at learning.award@dau.mil or call 703- 805-4864. Review the award criteria at < http://www.dau.mil/devaward/default.asp >.

DEPARTMENT OF DEFENSE NEWS RELEASE (MARCH 21, 2007)
STANDARDIZATION PROGRAM PRESENTS ANNUAL ACHIEVEMENT AWARDS

Two individuals and four teams received awards from the Defense Standardization Program Office (DSPO) for outstanding contributions to the Department of Defense last fiscal year. The awards were presented this month during a ceremony held in Arlington, Va.

Since 1987, DSPO has recognized individuals and organizations that have effected significant improvements in quality, reliability, readiness, cost reduction, and interoperability through standardization. The Defense Standardization Program mission is to identify, influence, develop, manage, and provide access to standardization processes, products, and services for warfighters and the acquisition and logistics communities. In addition, the program promotes interoperability and assists in reducing total ownership cost and in sustaining readiness.

Individual award recipients for 2006 include James Colson, general engineer, U.S. Army Materiel Command, Logistics Support Activity, Redstone Arsenal, Ala. Colson led the effort to gain agreement on and finalize a government electronics and information association standard, GEIA 927, melding the data concepts of diverse functional areas into one related entity. Also honored is B. Jon Klauenberg, a senior research physiologist for the Air Force Materiel Command. Klauenberg initiated and successfully gained Defense Standardization Program

approval for establishing a new standardization area, Radiofrequency Exposure to Personnel Safety.

Team winners include U.S. Army Armaments Research, Development, and Engineering Center 155mm Howitzer and Ammunition Interoperability Program Team, which led the effort to update the Joint Ballistics Memorandum of Understanding, the de facto international standard for development of 155mm howitzers and ammunition. Members are Russell Fiscella, Ralph Favale, James Rutkowski, James Bendick, and Douglas Brown.

The U.S. Army Communications-Electronics Research, Development and Engineering Center, I2WD Common Army Air Defense Interrogator Team developed a state-of-the-art system to differentiate between friendly and enemy aerial platforms. Members are Steve Haught, Billie Thomas, Dave Seliga, Cecilia Black, and Ed Seamans.

U.S Navy, Naval Sea Systems Command, Testing, Measurement, and Diagnostic Equipment Program Team launched an initiative to standardize and modernize the inventory of general-purpose electronic test equipment. Members are Ed Chergoski, Steven Makieil, and Donna Morse-Eaves.

U.S. Air Force, Air Force Materiel Command, Aeronautical Systems Center and Air Armament Center, Universal Armament Interface Team, worked to standardize the data interface between aircraft and weapons to enable the rapid deployment of precision-guided munitions. Members are Nadine Thomas, Elizabeth Jones, Oren Edwards, Lee Kashka, and Kristina Paige.

Additional information on the Defense Standardization Program is available at the DSP Web site at < http://www.dsp.dla.mil >.

MEDICAL COMMUNICATIONS FOR COMBAT CASUALTY CARE (MC4) (MARCH 27, 2007)
ARMY'S MC4 COMMANDER EARNS 2007 FED 100 AWARD
Army Lt. Col. Edward Clayson Honored for Expanding Medical Recording Capabilities on the Battlefield

FORT DETRICK, Md.—The Army's Medical Communications for Combat Casualty Care (MC4) commander, Lt. Col. Edward Clayson, was honored with the 2007 *Federal Computer Week* Fed 100 Award, which recognizes government individuals for their risk-taking, vision, and pioneering spirit in the federal IT community.

"Lt. Col. Clayson's and his team's efforts of fielding, training, and supporting medical IT systems on the battlefield have clearly led to improved battlefield medicine," said Lee Harvey, deputy program executive officer, Enterprise Information Systems. "Their hands-on approach yields firsthand insights into the likes and dislikes of medics and doctors, which the command uses to improve its systems."

Since taking over the reins of MC4 in 2005, Clayson has expanded the use of the system to all branches of the military, including Navy providers in Kuwait, Air Force providers in Afghanistan, as well as Army and Special Operations Forces units worldwide. As such, Clayso doubled the number of MC4 embedded support personnel, ensuring 30-plus trainers and administrators remain shoulder-to-shoulder with units in Operations Iraqi and Enduring Freedom.

"Our focus is simple—the servicemember is our top priority," said Clayson, MC4 product manager. "The MC4 system exists to benefit the servicemembers, so by having MC4 training and support alongside deployed medical professionals, units have the resources they need to complete the mission at hand."

In addition to expanding MC4 use, Clayson's MC4 team improved system functionality with the fielding of new medical logistics (DCAM) and electronic post-deployment health assessment (ePDHA) capabilities to the war zone. The comprehensive information management medical system has since been used to meet presidential and congressional directives set forth in Title 10, U.S.C., requiring the assessment of all servicemembers' medical conditions following deployment.

Following the Gulf War, in 1997 Congress mandated the Department of Defense establish a system to ensure every soldier, sailor, airman, and Marine has a comprehensive, lifelong medical record of all illnesses and injuries. Clayson and the MC4 team are responsible for integrating, fielding, and supporting a medical information management system that brings that ideal to fruition.

"The Federal 100 Awards program is an opportunity to look back and honor people who have risen to the occasion," said Christopher Dorobek, editor of *Federal Computer Week* magazine. "The 100 winners are the people who faced a variety of challenges and were determined to take a step forward and have a positive effect on people's lives."

To date, the MC4 system has been used to capture more than 2 million electronic health records on the battlefield. This represents the number of deployed servicemembers treated throughout Southwest Asia by better-informed healthcare providers, thus reducing the number of duplicate or unnecessary medical procedures. Servicemembers can now more easily access VA benefits through their complete, secure, electronic medical history.

Medical Communications for Combat Casualty Care (MC4) integrates, fields, and supports a medical information management system for Army tactical medical forces, enabling a comprehensive, lifelong electronic medical record for all servicemembers, and enhancing medical situational awareness for operational commanders. Headquartered at Fort Detrick, Md., MC4 is overseen by the Army Program Executive Office, Enterprise Information Systems (PEO EIS) at Fort Belvoir, Va.

For more information on MC4, visit < www.mc4.army. mil >.

Media contact: Ray Steen, MC4 Public Affairs. Call 301-815-5808 or e-mail ray.steen@us.army.mil.

Lt. Col. Edward Clayson, the Army's Medical Communications for Combat Casualty Care (MC4) commander, visits Bagram Air Field, where medical units in Afghanistan are using the MC4 system to digitally record patient care.
Photograph courtesy MC4 Public Affairs

DEPARTMENT OF DEFENSE NEWS RELEASE (MARCH 28, 2007)
DEPARTMENT OF DEFENSE HOSTS 2007 MENTOR-PROTEGE CONFERENCE AND PRESENTS NUNN-PERRY AWARDS

Department of Defense large prime contractors and small businesses that participate in the DoD Mentor-Protégé Program recently joined DoD representatives at the 2007 Mentor-Protégé Conference in Temecula, Calif., March 5–8.

The conference provided an opportunity to share ideas and celebrate 17 years of success. More than 500 attendees received information on initiating a mentor-protégé agreement, ways to overcome challenges, best practices, and rules and regulations pertaining to DoD contracting and procurement.

Deputy Under Secretary of Defense for Acquisition and Technology James I. Finley delivered the keynote address March 6 focusing on the theme "Building Strategic Partnerships for National Defense."

When the Mentor-Protégé Program began in 1991, there was only one mentor-protégé agreement. Now industry participants have formed nearly 1,000 more agreements.

The scope of the program now includes women-owned, Service-disabled veteran-owned, and historically under-utilized business zone concerns.

In a recent Web-based survey of 48 former protégés conducted by the Government Accountability Office, most reported that the program was a valuable experience that enhanced their business development and helped increase their contracts and revenues. Verifying the value of the Mentor-Protégé Program, 98 percent of the protégés reported that they would recommend the program to other eligible small businesses. Presently, more than 230 firms participate in the program, representing the manufacturing, service, construction, and research and development industries.

DoD honored eight mentor-protégé teams, consisting of large DoD contractors (mentors) and their small business protégés. The acting director for the DoD Office of Small Business Programs, Linda B. Oliver, presented each

team with the 2007 Nunn-Perry Award on March 7 during the conference.

The winning teams represent six different states and almost all of the small business sub-groups, including women-owned small businesses, Service-disabled veteran-owned small businesses, and Native American-owned small businesses.

This year's winners are the following mentor-protégé teams:

- Jacobs Engineering Group Inc. and Cabrera Services Inc.
- Lockheed Martin MS2 and Epsilon Systems Solutions Inc., Products Sector
- Lockheed Martin MS2 and Geodetics Inc.
- Lockheed Martin Missiles and Fire Control and R&D Electronics Inc.
- Northrop Grumman and Hi-Tech Electronic Manufacturing Inc.
- Raytheon Missile Systems and The ENSER Corp.
- Science Applications International Corporation and Oak Grove Technologies LLC
- Science Applications International Corp. and Oberon Associates Inc.

In addition to the winning teams, the DoD honored 12 historically black colleges and universities/minority institutions, and procurement technical assistance centers with a brand new award. The award honored the dedication of the following institutions to the mentor-protégé program: Alabama A&M University; California State University, Long Beach; Central Missouri State University; Florida International University; George Mason University, Mason Enterprise Center; J.F. Drake Technical College; North Carolina Central University; Prairie View A&M University; Southern University and A&M College; Southwestern College; The University of Texas at El Paso; and Tuskegee University.

In January the review panel for the Nunn-Perry Award recommended eight teams for the award. The basis evaluation was based on how well each mentor-protégé team worked together to achieve cost-efficiencies, enhance technical capabilities, and increase DoD prime contracting and subcontracting opportunities for small business. One hundred nine other mentor-protégé teams have been honored with Nunn-Perry Awards since 1995.

The Nunn-Perry Award is named in honor of former Sen. Sam Nunn and former Secretary of Defense William Perry. For additional information on the program, call 800-540-8857, visit online at < http://www.acq.osd.mil/osbp/mentor_protege/ >, or send an e-mail to programinformationmp@osd.mil.

DEPARTMENT OF DEFENSE NEWS RELEASE (APRIL 30, 2007)
DOD ANNOUNCES WINNERS OF ANNUAL MODELING AND SIMULATION AWARDS

The Department of Defense announced today that 10 winners have been selected for the ninth annual Department of Defense Modeling and Simulation (M&S) Awards. The winners for each category are:

- **Acquisition Community Winner**: Acquisition Modeling and Simulation Working Group (AMSWG) of the DoD Systems Engineering Forum, a body chartered by the under secretary of defense for acquisition, technology, and logistics, Washington, D.C., received the team award for leading the examination of the Department's M&S challenges in acquisition, fostering cooperative M&S activities, and creating an acquisition M&S master plan and business plan to improve M&S across the acquisition spectrum.

- **Analysis Community Winners**: World Class Models Initiative (WCM) of the Naval Operations' (OPNAV) Assessment Division (N81), U.S. Navy, Washington, D.C., received the team award for aggressively implementing WCM as an OPNAV enterprise-wide effort to improve readiness, manpower, strategic planning, C4ISR, and non-traditional warfare through an innovative mix of traditional M&S enhancements and exploratory "discovery" tasks. Its innovative and risk-balanced approach will expand the frontiers of Navy M&S, and pay dividends for years to come.

- **Operational Reachback Team** of the Weapons of Mass Destruction Division, Air Force Nuclear Weapons and Counterproliferation Agency at Kirtland Air Force Base, N.M., received the team award for developing an innovative end-to-end M&S toolkit—Serpent— that provides warfighters with advanced counter-chemical biological, radiological, nuclear technologies and systems; consolidates the latest Air Force capabilities for the collateral effects and target defeat; provides a test bed for fielding future agent defeat weapon concepts; and gives an operational capability to joint commanders for "target defeat with minimal collateral hazards.

- **Experimentation Community Winner**: Modeling and Simulation Division of the U.S. Joint Forces Command's

Joint Innovation and Experimentation Directorate (J-9), Suffolk, Va., received the team award for development of a synthetic environment sufficient to conduct political, economic, social, informational, and infrastructure modeling. This tool helps revolutionize joint experimentation by allowing the critical elements of national power to be explicitly modeled as actions and perceived effects in an environment common to the military and U.S. inter-agency communities.

- **Planning Community Winners**: Integrated Consumable Item Support (ICIS) Team of the Defense Logistics Agency, Ft. Belvoir, Va., received the team award for reengineering and redesigning the Joint Logistics Adaptive Planning and analysis tool into an Oracle-based system that improves accuracy and performance; saves time and resources; and does in minutes or hours what formerly took planners days, weeks, and even months to accomplish.

- **Adaptive Planning Implementation Team (APIT)** of the Joint Staff, J-7, Washington, D.C., received the team award for developing a transformational adaptive planning process and an end-to-end suite of planning and execution tools that support all aspects of contingency and crisis planning for combatant commands, joint force commanders, Service/functional components, combat support agencies, and the Joint Staff.

- **Test and Evaluation Community Winner:** U.S. Navy's Next Generation Command and Control Processor (NGC2P) Test and Evaluation Team of the commander, Operational Test and Evaluation Force (COMOPTEVFOR), Norfolk, Va., received the team award for using the hardware-in-the-loop (HWIL) capability of the Navy's Distributed Engineering Plant to cost effectively support an operational assessment of NGC2P. This cooperative test effort permitted robust assessment of NGC2P's joint interoperability and demonstrated the cost savings of using HWIL M&S facilities to provide in-depth joint operational and technical insight during systems development and acquisition.

- **Training Community Winner**: U.S. Army Chief Warrant Officer Harvey Jackson, director of the Army's Wheel Vehicle Maintenance School, 187th Ordnance Battalion, Fort Jackson, S.C., received the individual award for his visionary efforts in transforming training. He spearheaded the use of interactive 3-D equipment simulations for training mechanics to increase the readiness of high mobility multipurpose wheeled vehicles for use in the global war on terrorism. As a result, commanders in the field saw an immediate reduction in previously common HMMWV problems, greater availability of the vehicles, and increased soldier safety.

- **Common and Cross-Cutting Winners**: Ambiguity and Human Intelligence (HUMINT) Methodology Integrated Product Team of the U.S. Army Training and Doctrine Command Analysis Center, Ft. Leavenworth, Kan., received the team award for closing the gap in the development of means of incorporating HUMINT operations into DoD modeling needs.

- **Modeling and Simulation Branch (A5XS)** of the Headquarters, Air Force Concepts, Strategy, and Wargaming Division, Washington, D.C. received the team award for ground-breaking work integrating modeling and simulation tools to support the analytical and information technology needs of Air Force Title 10 and Joint wargaming. During the Unified Engagement 06 war game, the team delivered a war game information environment that seamlessly put powerful and intuitive information retrieval, analysis, and visualization tools in the hands of joint and coalition participants.

The annual awards recognize achievement in support of DoD M&S objectives. Ninety-nine nominations were received from across DoD.

AT&L Workforce—
Key Leadership Changes

DEPUTY DIRECTOR FOR STRATEGIC SOURCING APPOINTED

Stuart A. Hazlett has been promoted to the Senior Executive Service and selected as the deputy director for strategic sourcing, reporting to the director, Defense Procurement and Acquisition Policy, Office of the Under Secretary of Defense (Acquisition, Technology and Logistics). In this capacity, he will provide advice and counsel regarding the formulation and development of policy on various strategic sourcing programs associated with transformation.

Hazlett has held contracting officer warrants in the areas of research and development, systems, and sustainment acquisitions in support of numerous major weapon systems. In his last position he was the chief of procurement transformation, Office of the Deputy Assistant Secretary for Contracting, Assistant Secretary of the Air Force for Acquisition, Headquarters, U.S. Air Force, where he was charged with improving agile sourcing in the Air Force.

Hazlett entered federal service in 1984 assigned to the San Antonio Air Logistics Center at Kelly Air Force Base, Texas. He holds a bachelor of arts degree from Ohio Northern University and a master's degree from Central Michigan University.

GENERAL SERVICES ADMINISTRATION (MARCH 5, 2007)
WILKINSON APPOINTED TO GSA CHIEF ACQUISITION POLICY POSITION

Washington, D.C. —U.S. General Services Administration (GSA) Administrator Lurita Doan announced Molly Wilkinson will serve as the agency's chief acquisition officer. Her appointment is effective [March 5, 2007]. "GSA is very fortunate to have someone of Molly Wilkinson's caliber as our chief acquisition officer," said Doan. "Her contributions over the coming months will greatly help this office achieve its mission."

Wilkinson most recently served as associate deputy secretary for Management at the U.S. Department of Labor. In this position, she provided counsel and support to the DOL secretary, deputy secretary, and senior staff on internal agency operations regarding management, budget, and personnel issues. DOL has more than 16,500 employees and approximately $50 billion in total budget.

"I am honored to continue serving in the administration of President George W. Bush as chief acquisition officer under the leadership of Administrator Doan," said Wilkinson. "I look forward to working alongside members of the administrator's team, and becoming a part of the energy and professionalism that characterizes GSA."

Wilkinson began her public service career in the New York State Legislature in 1991 and served as an appointee in the administration of Gov. George Pataki. After serving in several posts, he appointed her to key positions focused on progressive refugee and immigrant advocacy, contract law, policy, and legislation. After more than 10 years in public service in New York, Wilkinson pursued opportunities to serve in the Bush Administration.

Prior to joining GSA, in addition to serving as associate deputy secretary for Management at DOL, she held several positions within the U.S. Department of Defense . Most significantly at DoD, she served as special projects coordinator for the Iraqi National Conference and special advisor to the Iraqi Supreme Commission in 2004, where she managed American security, logistics, and administrative support for the 1,500 delegates who comprised the Interim Iraqi National Council.

The Office of Chief Acquisition Officer is responsible for developing and reviewing acquisition policies, procedures, and related training for both GSA and federal acquisition professionals through the Federal Acquisition Institute, Civilian Acquisition Advisory Committee, Federal Acquisition Regulation, and GSA's acquisition manual and training programs.

A 1989 graduate of College of the Holy Cross in Worcester, Mass., Wilkinson earned her law degree from New York's Albany Law School in 1996 and is a member of the New York State Bar.

Media point of contact: Jennifer Millikin, 202-501-1231 or e-mail jennifer.millikin@gsa.gov.

FLAG OFFICER ANNOUNCEMENTS

Secretary of Defense Robert M. Gates announced today that the president has made the following nominations:

Navy Reserve Capt. Robin R. Braun has been nominated for appointment to the grade of rear admiral (lower half) while serving as commanding officer, Navy Air Logistics Office, New Orleans, La.

Navy Reserve Capt. Stephen P. Clarke has been nominated for appointment to the grade of rear admiral (lower half) while serving as assistant chief of staff, logistics operations, Navy Expeditionary Logistics Response Center, Cheatham Annex, Va.

Navy Reserve Capt. Scott E. Sanders has been nominated for appointment to the grade of rear admiral (lower half) while serving as Maritime Ballistic Missile Defense, commander, Second Fleet, Norfolk, Va.

Navy Reserve Capt. Patricia E. Wolfe has been nominated for appointment to the grade of rear admiral (lower half) while serving as commanding officer, Navy Supply Support Battalion ONE, Phoenix, Ariz.

GENERAL OFFICER ASSIGNMENTS

The chief of staff, Air Force announces the assignments of the following general officers:

Maj. Gen. Stephen T. Sargeant, deputy chief of staff, United Nations Command and U.S. Forces Korea, Yongsan Army Garrison, South Korea, to commander, Air Force Operational Test and Evaluation Center, Kirtland Air Force Base, N.M.

Brig. Gen. Larry D. James, director, Signals Intelligence Systems Acquisition and Operations Directorate, National Reconnaissance Office, Office of the Assistant Secretary of the Air Force for Space, Chantilly, Va., to vice commander, Fifth Air Force, Pacific Air Forces, Yokota Air Base, Japan.

GENERAL OFFICER ASSIGNMENTS

The chief of staff of the Army announces the assignment of the following officers:

Maj. Gen. Paul S. Izzo, commanding general, Picatinny Arsenal/program executive officer, Ammunition, Picatinny Arsenal, N.J., to deputy for acquisition and systems management, Office of the Assistant Secretary of the Army (Acquisition, Logistics and Technology), Washington, D.C.

Maj. Gen. James R. Myles, commanding general, U.S. Army Test and Evaluation Command, Alexandria, Va., to commanding general, U.S. Army Aviation and Missile Command, Redstone Arsenal, Ala.

Maj. Gen. Roger A. Nadeau, commanding general, U.S. Army Research, Development and Engineering Command and Aberdeen Proving Ground, Aberdeen Proving Ground, Md., to commanding general, U.S. Army Test and Evaluation Command, Alexandria, Va.

Maj. Gen. Fred D. Robinson Jr., commanding general, 1st Armored Division, U.S. Army Europe and Seventh Army, Germany, to commanding general, U.S. Army Research, Development and Engineering Command and Aberdeen Proving Ground, Aberdeen Proving Ground, Md.

Brig. Gen. Genaro J. Dellarocco, deputy commanding general for systems of systems integration, U.S. Army Research, Development and Engineering Command, Fort Belvoir, Va., to Program executive officer, Missiles and Space, Redstone Arsenal, Ala.

Brig. Gen. Nickolas G. Justice, deputy program executive officer, command, control, and communications (Tactical), Fort Monmouth, N.J. to program executive officer, command, control, and communications (tactical), Fort Monmouth, N.J.

Brig. Gen. William N. Phillips, deputy program executive officer, aviation, Redstone Arsenal, Ala., to commanding general, Picatinny Arsenal/program executive officer, ammunition, Picatinny Arsenal, N.J.

Brig. Gen. Dennis L. Via, commanding general, 5th Signal Command/deputy chief of staff, G-6, U.S. Army Europe and Seventh Army, Germany, to commanding general, U.S. Army Communications-Electronics Life Cycle

Management Command and Fort Monmouth, Fort Monmouth, N.J.

DEPARTMENT OF DEFENSE NEWS RELEASE (MARCH 13, 2007)
GENERAL OFFICER ASSIGNMENTS

The Air Force chief of staff announces the assignment of the following general officer: Maj. Gen. Chris T. Anzalone, deputy, test and assessment, Missile Defense Agency, Arlington, Va., to deputy, test and deputy, integration, logistics and fielding, Missile Defense Agency, Huntsville, Ala.

DEPARTMENT OF DEFENSE NEWS RELEASE (MARCH 19, 2007)
GENERAL OFFICER ANNOUNCEMENT

Secretary of Defense Dr. Robert M. Gates announced today that the president has nominated Marine Corps Lt. Gen. Richard S. Kramlich for assignment as the director, Marine Corps Staff, and for re-appointment to the grade of lieutenant general. Kramlich is presently serving as the deputy commandant for installations and logistics, Headquarters, U.S. Marine Corps, Washington, D.C.

DEPARTMENT OF DEFENSE NEWS RELEASE (MARCH 19, 2007)
GENERAL OFFICER ANNOUNCEMENTS

Secretary of Defense Robert M. Gates announced that the President has nominated the following Army Reserve officers for promotion to the next higher grade. Additionally, if the officer is moving, then the chief of staff, Army has approved the new assignment as indicated:

Brig. Gen. George R. Harris, deputy commanding general (troop program unit), 89th Regional Readiness Command, Wichita, Kan., to assistant military deputy (individual mobilization augmentee), to the Assistant Secretary of the Army (Acquisition, Logistics, Technology), Washington, D.C.

Brig. Gen. Maynard J. Sanders, deputy commander for Mobilization (Individual Mobilization Augmentee), Military Surface Deployment and Distribution Command, Alexandria, Va., to assistant deputy chief of staff (Individual Mobilization Augmentee), Mobilization and Training, Office of the Deputy Chief of Staff, G-4, Washington, D.C.

DEPARTMENT OF DEFENSE NEWS RELEASE (MARCH 22, 2007)
FLAG OFFICER ASSIGNMENTS

Chief of Naval Operations Adm. Mike Mullen announced today the following assignments:

Rear Adm. Charles M. Lilli is being assigned as director for logistics and engineering, J4, U.S. Northern Command, Peterson Air Force Base, Colo. Lilli is currently serving as Commander, Defense Supply Center, Columbus, Defense Logistics Agency, Columbus, Ohio.

Rear Adm. Mark F. Heinrich is being assigned as director, logistics operations, defense logistics operations, Washington, D.C. Heinrich is currently serving as commander, Defense Supply Center, Richmond, Defense Logistics Agency, Richmond, Va.

DEPARTMENT OF DEFENSE NEWS RELEASE (MARCH 23, 2007)
GENERAL OFFICER ASSIGNMENTS

The chief of staff, Army announces the assignment of the following officers:

Maj. Gen. James H. Pillsbury, commanding general, U.S. Army Aviation and Missile Command, Redstone Arsenal, Ala., to deputy chief of staff for logistics and operations, U.S. Army Materiel Command, Fort Belvoir, Va.

Brig. Gen. (promotable) Robert M. Radin, deputy chief of staff for logistics and operations, U.S. Army Materiel Command, Fort Belvoir, Va., to commanding general, U.S. Army Sustainment Command, Rock Island, Ill.

Brig. Gen. Richard L. McCabe, program manager, Saudi Arabian National Guard Modernization Program, Saudi Arabia, to commanding general, White Sands Missile Range, N.M.

Brig. Gen. Christopher Tucker, commanding general, U.S. Army Operational Test Command, Fort Hood, Texas, to program manager, Saudi Arabian National Guard Modernization Program, Saudi Arabia.

DEPARTMENT OF DEFENSE NEWS RELEASE (MARCH 23, 2007)
GENERAL OFFICER ASSIGNMENTS

The chief of staff, Air Force announces the assignments of the following general officers:

Maj. Gen. Wendell L. Griffin, director, Global Reach Programs, Office of the Assistant Secretary of the Air Force

for Acquisition, Pentagon, Washington, D.C., to Air Force chief of safety, Headquarters U.S. Air Force, Pentagon, Washington, D.C., and commander, Air Force Safety Center, Kirtland Air Force Base, N.M.

Maj. Gen. David S. Gray, commander, U.S. Air Force Expeditionary Center, Air Mobility Command, Fort Dix, N.J., to director, global reach programs, Office of the Assistant Secretary of the Air Force for Acquisition, Pentagon, Washington, D.C.

Brig. Gen. Andrew E. Busch, commander, 402nd Maintenance Wing, Warner Robins Air Logistics Center, Air Force Materiel Command, Robins Air Force Base, Ga., to commander, Defense Supply Center, Richmond, Defense Logistics Agency, Richmond, Va.

Brig. Gen. Charles K. Shugg, commander, 379th Air Expeditionary Wing, Air Combat Command, Al Udeid Air Base, Qatar, to commander, Joint Unmanned Aerial Vehicle Center of Excellence, J-8, Joint Staff, Creech Air Force Base, Nev.

DEPARTMENT OF DEFENSE NEWS RELEASE (MARCH 26, 2007)
FLAG OFFICER ANNOUNCEMENTS

Secretary of Defense Robert M. Gates announced today that the president has made the following nomination: Navy Rear Adm. (lower half) Michael J. Lyden has been nominated for appointment to the rank of rear admiral. Lyden is currently serving as director, logistics and security assistance, J4, U.S. European Command, Vaihingen, Germany.

DEPARTMENT OF DEFENSE NEWS RELEASE (APRIL 6, 2007)
GENERAL OFFICER ASSIGNMENTS

The Army Chief of Staff announces the assignment of the following general officers:

Maj. Gen. Kathleen M. Gainey, commanding general, Military Surface Deployment and Distribution Command, Alexandria, Virginia is relocating the command to Scott Air Force Base, Ill.

Maj.Gen. Timothy P. McHale, assistant deputy chief of staff, Operations and Logistics Readiness, G-43, Office of the Deputy Chief of Staff, G-4, United States Army, Washington, D.C., to deputy chief of staff, Resources and Sustainment, Multi-National Force-Iraq.

Brig. Gen. Steven M. Anderson, deputy chief of staff, Resources and Sustainment, Multi-National Force-Iraq, to assistant deputy chief of staff, Operations and Logistics Readiness, G-43, Office of the Deputy Chief of Staff, G-4, U.S. Army, Washington, D.C.

Brig.Gen. Kenneth S. Dowd, director, Logistics, Engineering and Security Assistance, J-4, U.S. Pacific Command, Camp H. M. Smith, Hawaii, to director for Logistics, J-4, United States Central Command, MacDill Air Force Base, Florida.

DEPARTMENT OF DEFENSE NEWS RELEASE (APRIL 6, 2007)
GENERAL OFFICER ASSIGNMENTS

The Air Force chief of staff announces the assignments of the following general officers:

Maj. Gen. Arthur B. Morrill III, director, logistics and sustainment, Headquarters Air Force Materiel Command, Wright-Patterson Air Force Base, Ohio, to vice director, Defense Logistics Agency, Fort Belvoir, Va.

Brig. Gen. Francis M. Bruno, director, logistics, Headquarters Pacific Air Forces, Hickam Air Force Base, Hawaii to director, Logistics and Sustainment, Headquarters Air Force Materiel Command, Wright-Patterson Air Force Base, Ohio.

DEPARTMENT OF DEFENSE NEWS RELEASE (APRIL 11, 2007)
GENERAL OFFICER ANNOUNCEMENTS

Secretary of Defense Robert M. Gates announced today that the president has made the following nominations:

Air Force Col. Mark A. Atkinson has been nominated to the grade of brigadier general while serving as the director, logistics, installations and mission support, Headquarters Air Education and Training Command, Randolph Air Force Base, Texas.

Air Force Col. Dave C. Howe has been nominated to the grade of brigadier general while serving as the deputy director, installations and mission support and the civil engineer, Headquarters U.S. Air Forces in Europe, Ramstein Air Base, Germany.

Air Force Col. Wendy M. Masiello has been nominated to the grade of brigadier general while serving as the associate deputy assistant secretary of contracting, Office

of the Assistant Secretary of the Air Force, Acquisition, Pentagon, Washington, D.C.

DEPARTMENT OF DEFENSE NEWS RELEASE (APRIL 12, 2007)
GENERAL OFFICER ASSIGNMENTS

The Army chief of staff announces the assignment of the following officers:

Brig. Gen. Walter L. Davis, commander, Joint Unmanned Aircraft Systems Center of Excellence, Indian Springs Airfield, Creech Air Force Base, Nev., to director of operational maneuver, Third U.S. Army/U.S. Army Central, Camp Arifjan, Kuwait.

Colonel (Promotable) Xavier P. Lobeto, assistant deputy chief of staff for strategy and integration, Office of the Deputy Chief of Staff, G-4, U.S. Army, Washington, D.C., to commanding general, 19th Sustainment Command (Expeditionary), Eighth U.S. Army, Korea.

DEPARTMENT OF DEFENSE NEWS RELEASE (APRIL 13, 2007)
FLAG OFFICER ANNOUNCEMENTS

Secretary of Defense Robert M. Gates announced today that the president has made the following nominations:

Navy Capt. Robert J. Bianchi has been nominated for appointment to the rank of rear admiral (lower half). Bianchi is currently serving as chief of staff to the commander, Naval Inventory Control Point, Philadelphia, Pa.

Navy Capt. Thomas C. Traaen has been nominated for appointment to the rank of rear admiral (lower half). Traaen is currently serving as deputy commander for logistics operations, Naval Supply Systems Command, Mechanicsburg, Pa.

DEPARTMENT OF DEFENSE NEWS RELEASE (APRIL 13, 2007)
GENERAL OFFICER ANNOUNCEMENT

The Air Force chief of staff announces the assignments of the following general officer: Brig. Gen. Silvanus T. Gilbert III, director, Air Force Smart Operations 21, Office of the Secretary of the Air Force, Pentagon, Washington, D.C., to director, strategic plans, requirements and programs, Headquarters Air Mobility Command, Scott Air Force Base, Ill.

DEPARTMENT OF DEFENSE NEWS RELEASE (APRIL 16, 2007)
FLAG OFFICER ASSIGNMENTS

Chief of Naval Operations Adm. Mike Mullen announced the following flag officer assignments:

Rear Adm. Richard E. Cellon is being assigned as commander, First Naval Construction Division, Norfolk, Va. Cellon is currently serving as commander, Naval Facilities Engineering Command Atlantic, Norfolk, Va.

Rear Adm. (lower half) William R. Burke is being assigned as director, Assessment Division, N81, Office of the Chief of Naval Operations, Washington, D.C. Burke is currently serving as commander, Logistics Group, Western Pacific/commander, Task Force 73/commander, Navy Region Singapore, Singapore.

Rear Adm. (lower half) Christopher J. Mossey is being assigned as commander, Naval Facilities Engineering Command Atlantic, Norfolk, Va. Mossey is currently serving as commander Pacific Division, Naval Facilities Engineering Command, Pearl Harbor, Hawaii.

DEPARTMENT OF DEFENSE NEWS RELEASE (APRIL 19, 2007)
GENERAL OFFICER ASSIGNMENT

The Army chief of staff announces the assignment of the following general officer: Brig.Gen. John P. Basilica Jr., U.S. Army National Guard, for assignment as director of logistics, J-4, National Guard Bureau, Arlington, Va.

DEPARTMENT OF DEFENSE NEWS RELEASE (APRIL 20, 2007)
FLAG OFFICER ASSIGNMENT

Chief of Naval Operations Adm. Mike Mullen announced the following flag officer assignment: Rear Adm.(lower half)(selectee) Steven J. Romano is being assigned as director of Logistics and Security Assistance, J4, U.S. European Command, Stuttgart, Germany. Romano is currently serving as chief, Strategy Division, J4, Joint Staff, Washington, D.C.

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• Gain recognition as subject matter experts
• Are invited to speak at conferences or symposia
• Get promoted or rewarded.

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Surfing the Net

Acquisition Central
http://acquisition.gov/
Shared systems and tools to help the federal acquisition community and the government's business partners conduct business efficiently.

Acquisition Community Connection (ACC)
http://acc.dau.mil
Policies, procedures, tools, references, publications, Web links, and lessons learned for risk management, contracting, system engineering, total ownership cost.

Advanced Concept Technology Demonstrations (ACTDs)
www.acq.osd.mil/actd/
ACTD's accomplishments, articles, speeches, guidelines, and POCs.

Aging Systems Sustainment and Enabling Technologies (ASSET)
http://asset.okstate.edu/asset/index.htm
A government-academic-industry partnership. ASSET program-developed technologies and processes increase the DoD supply base, reduce time and cost associated with parts procurement, and enhance military readiness.

Air Force (Acquisition)
www.safaq.hq.af.mil/
Policy; career development and training opportunities; reducing TOC; library; links.

Air Force Materiel Command (AFMC) Contracting Laboratory's FAR Site
http://farsite.hill.af.mil/
FAR search tool; Commerce Business Daily announcements (CBDNet); Federal Register; electronic forms library.

Army Acquisition Support Center
http://asc.army.mil
News; policy; *Army AL&T* Magazine; programs; career information; events; training opportunities.

Assistant Secretary of the Army (Acquisition, Logistics & Technology)
https://webportal.saalt.army.mil/
ACAT Listing; ASA(ALT) Bulletin; digital documents library; ASA(ALT) organization; links to other Army acquisition sites.

Association for the Advancement of Cost Engineering International (AACE)
www.aacei.org
Promotes planning and management of cost and schedules; online technical library; bookstore; technical development; distance learning; etc.

Association of Old Crows (AOC)
www.crows.org
News; conventions, courses; *Journal of Electronic Defense.*

Association of Procurement Technical Assistance Centers (APTAC)
www.aptac-us.org
PTACs nationwide assist businesses with government contracting issues.

Committee for Purchase from People Who are Blind or Severely Disabled
www.jwod.gov
Information and guidance to federal customers on the requirements of the Javits-Wagner-O'Day (JWOD) Act.

Defense Acquisition University (DAU)
www.dau.mil
DAU Course Catalog; *Defense AT&L* magazine and *Defense Acquisition Review Journal*; course schedule; policy documents; guidebooks; training and education news for the AT&L workforce.

DAU Alumni Association
www.dauaa.org
Acquisition tools and resources; government and related links; career opportunities; member forums.

DAU Distance Learning Courses
www.dau.mil/registrar/enroll.asp
DAU online courses.

Defense Advanced Research Projects Agency (DARPA)
www.darpa.mil
News releases; current solicitations; "Doing Business with DARPA."

Defense Electronic Business Program Office (DEBPO)
www.acq.osd.mil/scst/index.htm
Policy; newsletters; Central Contractor Registration (CCR); assistance centers; DoD EC partners.

Defense Information Systems Agency (DISA)
www.disa.mil
Structure and mission of DISA; Defense Information System Network; Defense Message System; Global Command and Control System.

Defense Modeling and Simulation Office (DMSO)
www.dmso.mil
DoD Modeling and Simulation Master Plan; document library; events; services.

Defense Systems Management College (DSMC)
www.dau.mil
DSMC educational products and services; course schedules; job opportunities.

Defense Technical Information Center (DTIC)
www.dtic.mil/
DTIC's scientific and technical information network (STINET) is one of DoD's largest available repositories of scientific, research, and engineering information. Hosts over 100 DoD Web sites.

Director, Defense Procurement and Acquisition Policy (DPAP)
www.acq.osd.mil/dpap
Procurement and acquisition policy news and events; reference library; DPAP organizational breakout; acquisition education and training policy, guidance.

DoD Defense Standardization Program
www.dsp.dla.mil
DoD standardization; points of contact; FAQs; military specifications and standards reform; newsletters; training; nongovernment standards; links.

DoD Enterprise Software Initiative (ESI)
www.esi.mil
Joint project to implement true software enterprise management process within DoD.

DoD Inspector General Publications
www.dodig.osd.mil/pubs/
Audit and evaluation reports; IG testimony; planned and ongoing audit projects of interest to the AT&L community.

DoD Office of Technology Transition
www.acq.osd.mil/ott/
Information about and links to OTT's programs.

DoD Systems Engineering
www.acq.osd.mil/ds/se
IPolicies, guides and other information on SE and related topics, including developmental T&E and acquisition program support.

Earned Value Management
www.acq.osd.mil/pm
Implementation of earned value management; latest policy changes; standards; international developments.

Electronic Industries Alliance (EIA)
www.eia.org
Government relations department; links to issues councils; market research assistance.

Federal Acquisition Institute (FAI)
www.faionline.com
Virtual campus for learning opportunities; information access and performance support.

Federal Acquisition Jump Station
http://prod.nais.nasa.gov/pub/fedproc/home.html
Procurement and acquisition servers by contracting activity; CBDNet; reference library.

Federal Aviation Administration (FAA)
www.asu.faa.gov
Online policy and guidance for all aspects of the acquisition process.

Federal Business Opportunities
www.fedbizopps.gov/
FedBizOpps.gov is the single government point-of-entry for federal government procurement opportunities over $25,000.

Federal R&D Project Summaries
www.osti.gov/fedrnd/about
Portal to information on federal research projects; search databases at different agencies.

Federal Research in Progress (FEDRIP)
http://grc.ntis.gov/fedrip.htm
Information on federally funded projects in the physical sciences, engineering, life sciences.

Fedworld Information
www.fedworld.gov
Comprehensive central access point for searching, locating, ordering, and acquiring government and business information.

Government Accountability Office (GAO)
www.gao.gov
GAO reports; policy and guidance; FAQs.

General Services Administration (GSA)
www.gsa.gov
Online shopping for commercial items to support government interests.

Government-Industry Data Exchange Program (GIDEP)
www.gidep.org/
Federally funded co-op of government-industry participants, providing electronic forum to exchange technical information essential to research, design, development, production, and operational phases of the life cycle of systems, facilities, and equipment.

GOV.Research_Center
http://grc.ntis.gov
U.S. Dept. of Commerce, National Technical Information Service (NTIS), and National Information Services Corporation (NISC) joint venture single-point access to government information.

Integrated Dual-Use Commercial Companies (IDCC)
www.idcc.org
Information for technology-rich commercial companies on doing business with the federal government.

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S u r f i n g   t h e   N e t

International Society of Logistics
www.sole.org
Online desk references that link to logistics problem-solving advice; Certified Professional Logistician certification.

International Test & Evaluation Association (ITEA)
www.itea.org
Professional association to further development and application of T&E policy and techniques to assess effectiveness, reliability, and safety of new and existing systems and products.

U.S. Joint Forces Command
www.jfcom.mil
A "transformation laboratory" that develops and tests future concepts for warfighting.

Joint Fires Integration and Interoperability Team
https://jfiit.eglin.af.mil
USJFCOM lead agency to investigate, assess, and improve integration, interoperability, and operational effectiveness of Joint Fires and Combat Identification across the Joint warfighting spectrum. (Accessible from .gov and .mil domains only.)

Joint Interoperability Test Command (JITC)
http://jitc.fhu.disa.mil
Policies and procedures for interoperability certification; lessons learned; support.

Joint Spectrum Center (JSC)
www.jsc.mil
Provides operational spectrum management support to the Joint Staff and COCOMs and conducts R&D into spectrum-efficient technologies.

Library of Congress
www.loc.gov
Research services; Congress at Work; Copyright Office; FAQs.

MANPRINT (Manpower and Personnel Integration)
www.manprint.army.mil
Points of contact for program managers; relevant regulations; policy letters from the Army Acquisition Executive; briefings on the MANPRINT program.

National Aeronautics and Space Administration (NASA)'s Commercial Technology Office (CTO)
http://technology.grc.nasa.gov
Promotes competitiveness of U.S. industry through commercial use of NASA technologies and expertise.

National Contract Management Association (NCMA)
www.ncmahq.org
"What's New in Contracting?"; educational products catalog; career center.

National Defense Industrial Association (NDIA)
www.ndia.org
Association news; events; government policy; National Defense magazine.

National Geospatial-Intelligence Agency
www.nima.mil
Imagery; maps and geodata; Freedom of Information Act resources; publications.

National Institute of Standards and Technology (NIST)
www.nist.gov
Information about NIST technology, measurements, and standards programs, products, and services.

National Technical Information Service (NTIS)
www.ntis.gov/
Online service for purchasing technical reports, computer products, videotapes, audiocassettes.

Naval Sea Systems Command
www.navsea.navy.mil
Total Ownership Cost (TOC); documentation and policy; reduction plan; implementation timeline; TOC reporting templates; FAQs.

Navy Acquisition and Business Management
www.abm.rda.hq.navy.mil
Policy documents; training opportunities; guides on risk management, acquisition environmental issues, past performance; news and assistance for the Standardized Procurement System (SPS) community; notices of upcoming events.

Navy Acquisition, Research and Development Information Center
www.onr.navy.mil/sci_tech

News and announcements; acronyms; publications and regulations; technical reports; doing business with the Navy.

Navy Best Manufacturing Practices Center of Excellence
www.bmpcoe.org
National resource to identify and share best manufacturing and business practices in use throughout industry, government, academia.

Naval Air Systems Command (NAVAIR)
www.navair.navy.mil
Provides advanced warfare technology through the efforts of a seamless, integrated, worldwide network of aviation technology experts.

Office of Force Transformation
www.oft.osd.mil
News on transformation policies, programs, and projects throughout the DoD and the Services.

Open Systems Joint Task Force
www.acq.osd.mil/osjtf
Open Systems education and training opportunities; studies and assessments; projects, initiatives and plans; reference library.

Parts Standardization and Management Committee (PSMC)
www.dscc.dla.mil/psmc
Collaborative effort between government and industry for parts management and standardization through commonality of parts and processes.

Performance-based Logistics Toolkit
https://acc.dau.mil/pbltoolkit
Web-based 12-step process model for development, implementation, and management of PBL strategies.

Project Management Institute
www.pmi.org
Program management publications; information resources; professional practices; career certification.

Small Business Administration (SBA)
www.sbaonline.sba.gov
Communications network for small businesses.

DoD Office of Small and Disadvantaged Business Utilization
www.acq.osd.mil/sadbu
Program and process information; current solicitations; Help Desk information.

Software Program Managers Network
www.spmn.com
Supports project managers, software practitioners, and government contractors. Contains publications on highly effective software development best practices.

Space and Naval Warfare Systems Command (SPAWAR)
https://e-commerce.spawar.navy.mil
SPAWAR business opportunities; acquisition news; solicitations; small business information.

System of Systems Engineering Center of Excellence (SoSECE)
www.sosece.org
Advances the development, evolution, practice, and application of the system of systems engineering discipline across individual and enterprise-wide systems.

Under Secretary of Defense (Acquisition, Technology and Logistics) (USD[AT&L])
www.acq.osd.mil/
USD(AT&L) documents; streaming videos; links.

USD(AT&L) Knowledge Sharing System (formerly Defense Acquisition Deskbook)
http://akss.dau.mil
Automated acquisition reference tool covering mandatory and discretionary practices.

U.S. Coast Guard
www.uscg.mil
News and current events; services; points of contact; FAQs.

U.S. Department of Transportation MARITIME Administration
www.marad.dot.gov/
Information and guidance on the requirements for shipping cargo on U.S. flag vessels.

Defense AT&L Writer's Guidelines in Brief

Purpose

The purpose of *Defense AT&L* magazine is to instruct members of the DoD acquisition, technology & logistics (AT&L) workforce and defense industry on policies, trends, legislation, senior leadership changes, events, and current thinking affecting program management and defense systems acquisition, and to disseminate other information pertinent to the professional development and education of the DoD Acquisition Workforce.

Subject Matter

We do print feature stories that include real people and events. Stories that appeal to our readers—who are senior military personnel, civilians, and defense industry professionals in the program management/acquisition business—are those taken from real-world experiences vs. pages of researched information. **We don't print** academic papers, fact sheets, technical papers, or white papers. We don't use endnotes or references in our articles. Manuscripts meeting these criteria are more suited for DAU's journal, *Defense Acquisition Review*.

Defense AT&L reserves the right to edit manuscripts for clarity, style, and length. Edited copy is cleared with the author before publication.

Length

Articles should be 1,500 – 2,500 words. Significantly longer articles: please query first by sending an abstract and a word count for the finished article.

Author bio

Include a brief biographical sketch of the author(s)—about 25 words—including current position and educational background. We do not use author photographs.

Style

Good writing sounds like comfortable conversation. Write naturally; avoid stiltedness and heavy use of passive voice. Except for a rare change of pace, most sentences should be 25 words or less, and paragraphs should be six sentences. Avoid excessive use of capital letters and acronyms. Define *all* acronyms used. Consult "Tips for Authors" at <http://www.dau.mil/pubs/damtoc.asp>. Click on "Submit an Article to *Defense AT&L*."

Presentation

Manuscripts should be submitted as Microsoft Word files. Please use Times Roman or Courier 11 or 12 point. Double space your manuscript and do not use columns or any formatting other than bold, italics, and bullets. *Do not embed or import graphics into the document file*; they must be sent as separate files (see next section).

Graphics

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Issue	Author's Deadline
July-August	1 October
March-April	1 December
May-June	1 February
July-August	1 April
September-October	1 June
November-December	1 August

If the magazine fills before the author deadline, submissions are considered for the following issue.

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